



ELECTRONICS

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SERVICE MANUAL
DVD-N2000

SAMSUNG

SAMSUNG

SERVICE Manual

DVD PLAYER



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1. Precautions

1-1 Safety Precautions

1) Before returning an instrument to the customer, always make a safety check of the entire instrument, including, but not limited to, the following items:

(1) Be sure that no built-in protective devices are defective or have been defeated during servicing.
(1) Protective shields are provided to protect both the technician and the customer. Correctly replace all missing protective shields, including any removed for servicing convenience.
(2) When reinstalling the chassis and/or other assembly in the cabinet, be sure to put back in place all protective devices, including, but not limited to, nonmetallic control knobs, insulating fish papers, adjustment and compartment covers/shields, and isolation resistor/capacitor networks. Do not operate this instrument or permit it to be operated without all protective devices correctly installed and functioning.

(2) Be sure that there are no cabinet openings through which adults or children might be able to insert their fingers and contact a hazardous voltage. Such openings include, but are not limited to, excessively wide cabinet ventilation slots, and an improperly fitted and/or incorrectly secured cabinet back cover.

(3) Leakage Current Hot Check-With the instrument completely reassembled, plug the AC line cord directly into a 120V AC outlet. (Do not use a isolation transformer during this test.) Use a leakage current tester or a metering system that complies with American National Standards Institute (ANSI) C101.1 Leakage Current for Appliances and Underwriters Laboratories (UL) 1270 (40.7). With the instrument's AC switch first in the ON position and then in the OFF position, measure from a known earth ground (metal water pipe, conduit, etc.) to all exposed metal parts of the instrument (antennas, handle brackets, metal cabinets, screwheads, metallic overlays, control shafts, etc.), especially any exposed metal parts that offer an electrical return path to the chassis.

Any current measured must not exceed 0.5mA. Reverse the instrument power cord plug in the outlet and repeat the test. See Fig. 1-1.

Any measurements not within the limits specified herein indicate a potential shock hazard that must be eliminated before returning the instrument to the customer.

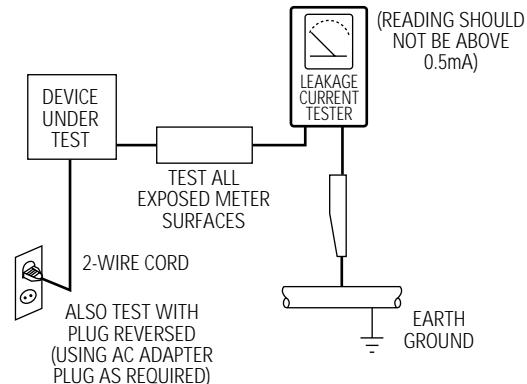


Fig. 1-1 AC Leakage Test

(4) Insulation Resistance Test Cold Check-(1) Unplug the power supply cord and connect a jumper wire between the two prongs of the plug. (2) Turn on the power switch of the instrument. (3) Measure the resistance with an ohmmeter between the jumpered AC plug and all exposed metallic cabinet parts on the instrument, such as screwheads, antenna, control shafts, handle brackets, etc. When an exposed metallic part has a return path to the chassis, the reading should be between 1 and 5.2 megohm. When there is no return path to the chassis, the reading must be infinite. If the reading is not within the limits specified, there is the possibility of a shock hazard, and the instrument must be re-paired and rechecked before it is returned to the customer. See Fig. 1-2.

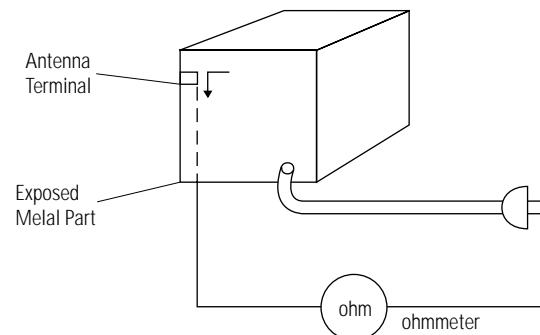


Fig. 1-2 Insulation Resistance Test

Precautions

- 2) Read and comply with all caution and safety related notes non or inside the cabinet, or on the chassis.
- 3) Design Alteration Warning-Do not alter or add to the mechanical or electrical design of this instrument. Design alterations and additions, including but not limited to, circuit modifications and the addition of items such as auxiliary audio output connections, might alter the safety characteristics of this instrument and create a hazard to the user. Any design alterations or additions will make you, the service, responsible for personal injury or property damage resulting therefrom.
- 4) Observe original lead dress. Take extra care to assure correct lead dress in the following areas:
(1) near sharp edges, (2) near thermally hot parts (be sure that leads and components do not touch thermally hot parts), (3) the AC supply, (4) high voltage, and (5) antenna wiring. Always inspect in all areas for pinched, out-of-place, or frayed wiring. Do not change spacing between a component and the printed-circuit board. Check the AC power cord for damage.
- 5) Components, parts, and/or wiring that appear to have overheated or that are otherwise damaged should be replaced with components, parts and/ or wiring that meet original specifications. Additionally, determine the cause of overheating and/or damage and, if necessary, take corrective action to remove any potential safety hazard.
- 6) Product Safety Notice-Some electrical and mechanical parts have special safety-related characteristics which are often not evident from visual inspection, nor can the protection they give necessarily be obtained by replacing them with components rated for higher voltage, wattage, etc. Parts that have special safety characteristics are identified by shading, an (▲) or a (△) on schematics and parts lists. Use of a substitute replacement that does not have the same safety characteristics as the recommended replacement part might create shock, fire and/or other hazards. Product safety is under review continuously and new instructions are issued whenever appropriate.

1-2 Servicing Precautions

CAUTION : Before servicing Instruments covered by this service manual and its supplements, read and follow the Safety Precautions section of this manual.

Note : If unforseen cincumst create conflict between the following servicing precautions and any of the safety precautions, always follow the safety precautions. Remember: Safety First.

1-2-1 General Servicing Precautions

- (1) a. Always unplug the instrument's AC power cord from the AC power source before (1) re-moving or reinstalling any component, circuit board, module or any other instrument assembly, (2) disconnecting any instrument electrical plug or other electrical connection, (3) connecting a test substitute in parallel with an electrolytic capacitor in the instrument.
- b. Do not defeat any plug/socket B+ voltage interlocks with which instruments covered by this service manual might be equipped.
- c. Do not apply AC power to this instrument and /or any of its electrical assemblies unless all solid-state device heat sinks are correctly installed.
- d. Always connect a test instrument's ground lead to the instrument chassis ground before connecting the test instrument positive lead. Always remove the test instrument ground lead last.

Note : Refer to the Safety Precautions section ground lead last.

- (2) The service precautions are indicated or printed on the cabinet, chassis or components. When servicing, follow the printed or indicated service precautions and service materials.
- (3) The components used in the unit have a specified flame resistance and dielectric strength. When replacing components, use components which have the same ratings. Components identified by shading, by (▲) or by (△) in the circuit diagram are important for safety or for the characteristics of the unit. Always replace them with the exact replacement components.

(4) An insulation tube or tape is sometimes used and some components are raised above the printed wiring board for safety. The internal wiring is sometimes clamped to prevent contact with heating components. Install such elements as they were.

(5) After servicing, always check that the removed screws, components, and wiring have been installed correctly and that the portion around the serviced part has not been damaged and so on. Further, check the insulation between the blades of the attachment plug and accessible conductive parts.

1-2-2 Insulation Checking Procedure

Disconnect the attachment plug from the AC outlet and turn the power ON. Connect the insulation resistance meter (500V) to the blades of the attachment plug. The insulation resistance between each blade of the attachment plug and accessible conductive parts(see note) should be more than 1 Megohm.

Note : Accessible conductive parts include metal panels, input terminals, earphone jacks, etc.

1-3 ESD Precautions

Electrostatically Sensitive Devices (ESD)

Some semiconductor (solid state) devices can be damaged easily by static electricity.

Such components commonly are called Electrostatically Sensitive Devices(ESD). Examples of typical ESD devices are integrated circuits and some field-effect transistors and semiconductor chip components. The following techniques should be used to help reduce the incidence of component damage caused by static electricity.

- (1) Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any electrostatic charge on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging wrist strap device, which should be removed for potential shock reasons prior to applying power to the unit under test.
- (2) After removing an electrical assembly equipped with ESD devices, place the assembly on a conductive surface such as aluminum foil, to prevent electrostatic charge buildup or exposure of the assembly.
- (3) Use only a grounded-tip soldering iron to solder or unsolder ESD devices.
- (4) Use only an anti-static solder removal devices. Some solder removal devices not classified as "anti-static" can generate electrical charges sufficient to damage ESD devices.
- (5) Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ESD devices.
- (6) Do not remove a replacement ESD device from its protective package until immediately before you are ready to install it.(Most replacement ESD devices are packaged with leads electrically shorted together by conductive foam, aluminum foil or comparable conductive materials).

(7) Immediately before removing the protective materials from the leads of a replacement ESD device, touch the protective material to the chassis or circuit assembly into which the device will be installed.

CAUTION : Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.

(8) Minimize bodily motions when handling unpackaged replacement ESD devices. (Otherwise harmless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity sufficient to damage an ESD device).

1-4 Handling the optical pick-up

The laser diode in the optical pick up may suffer electrostatic breakdown because of potential static electricity from clothing and your body.

The following method is recommended.

- (1) Place a conductive sheet on the work bench (The black sheet used for wrapping repair parts.)
- (2) Place the set on the conductive sheet so that the chassis is grounded to the sheet.
- (3) Place your hands on the conductive sheet (This gives them the same ground as the sheet.)
- (4) Remove the optical pick up block
- (5) Perform work on top of the conductive sheet. Be careful not to let your clothes or any other static sources to touch the unit.

Be sure to put on a wrist strap grounded to the sheet.

Be sure to lay a conductive sheet made of copper etc. Which is grounded to the table.

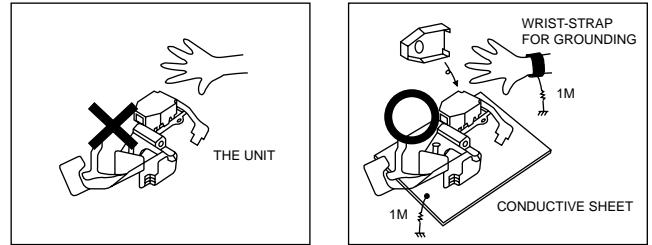


Fig.1-3

- (6) Short the short terminal on the PCB, which is inside the Pick-Up ASS'Y, before replacing the Pick-Up. (The short terminal is shorted when the Pick-Up Ass'y is being lifted or moved.)
- (7) After replacing the Pick-up, open the short terminal on the PCB.

1-5 Pick-up disassembly and reassembly

1-5-1 Disassembly

- 1) Remove the power cable.
- 2) Switch SW3 on Deck PCB to "OFF" before removing the Flat-Cable.
(Inserted into Main Front PCB CN6. See Fig. 1-4)
- 3) Disassemble the Deck.
- 4) Disassemble the Deck PCB.

1-5-2 Assembly

- 1) Replace the Pick-up.
- 2) Assemble the Deck PCB.
- 3) Reassemble the Deck.
- 4) Insert Flat-Cable into Main Front PCB CN6 and switch SW3 on Deck PCB to "ON". (See Fig 1-4)

Note : If the assembly and disassembly are not done in correct sequence, the Pick-up may be damaged.

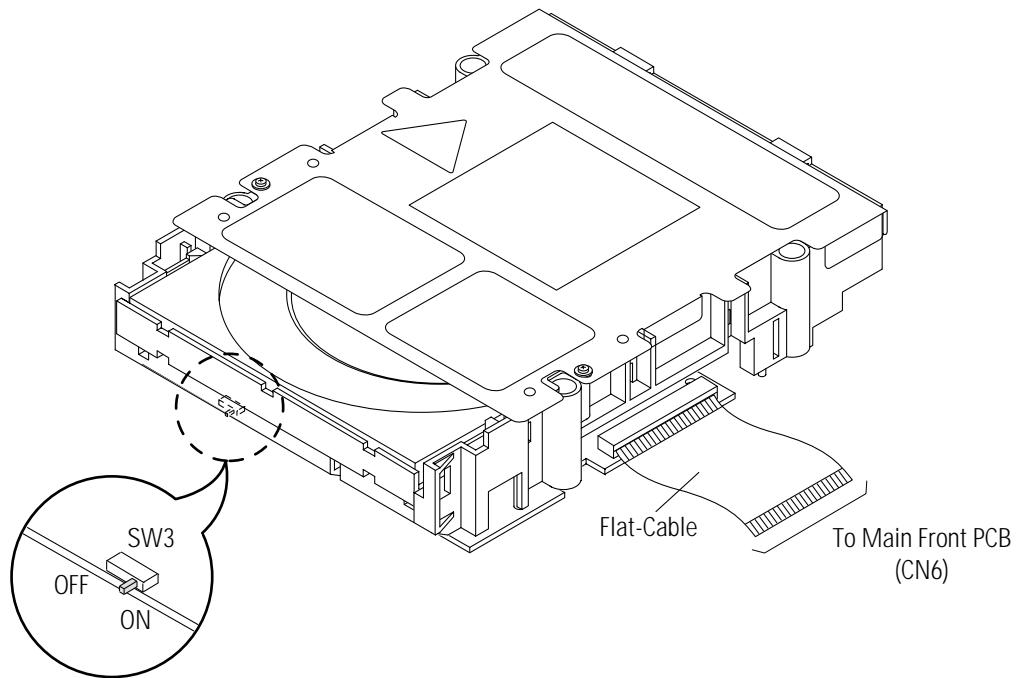
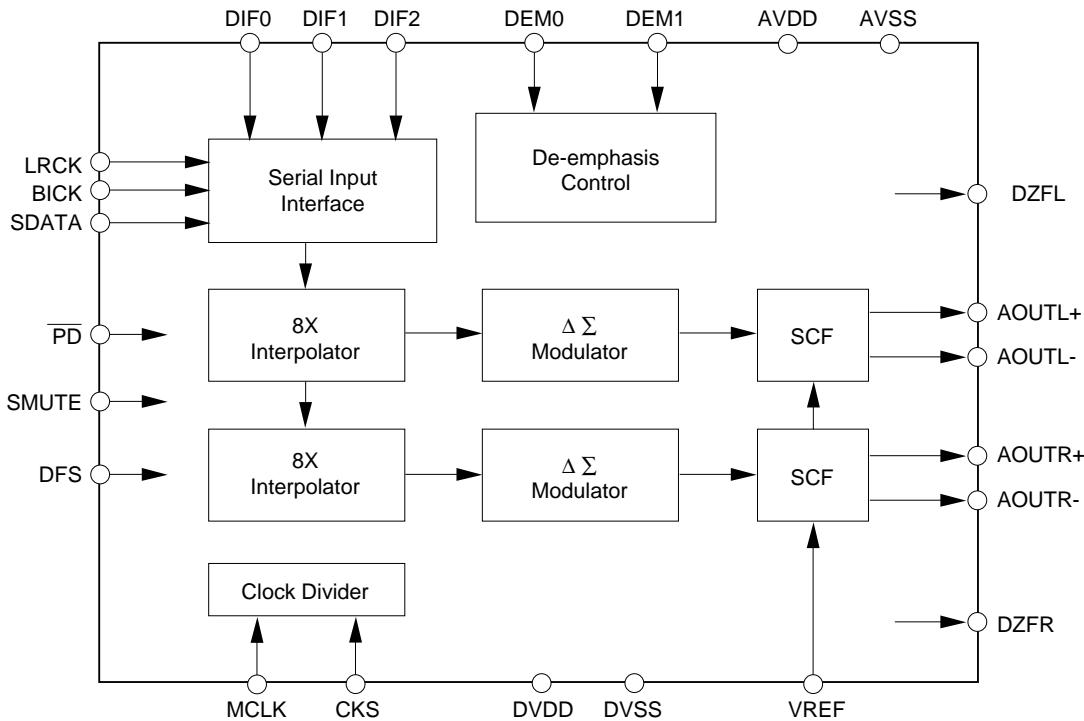


Fig. 1-4

2. Reference Information

2-1 IC Descriptions

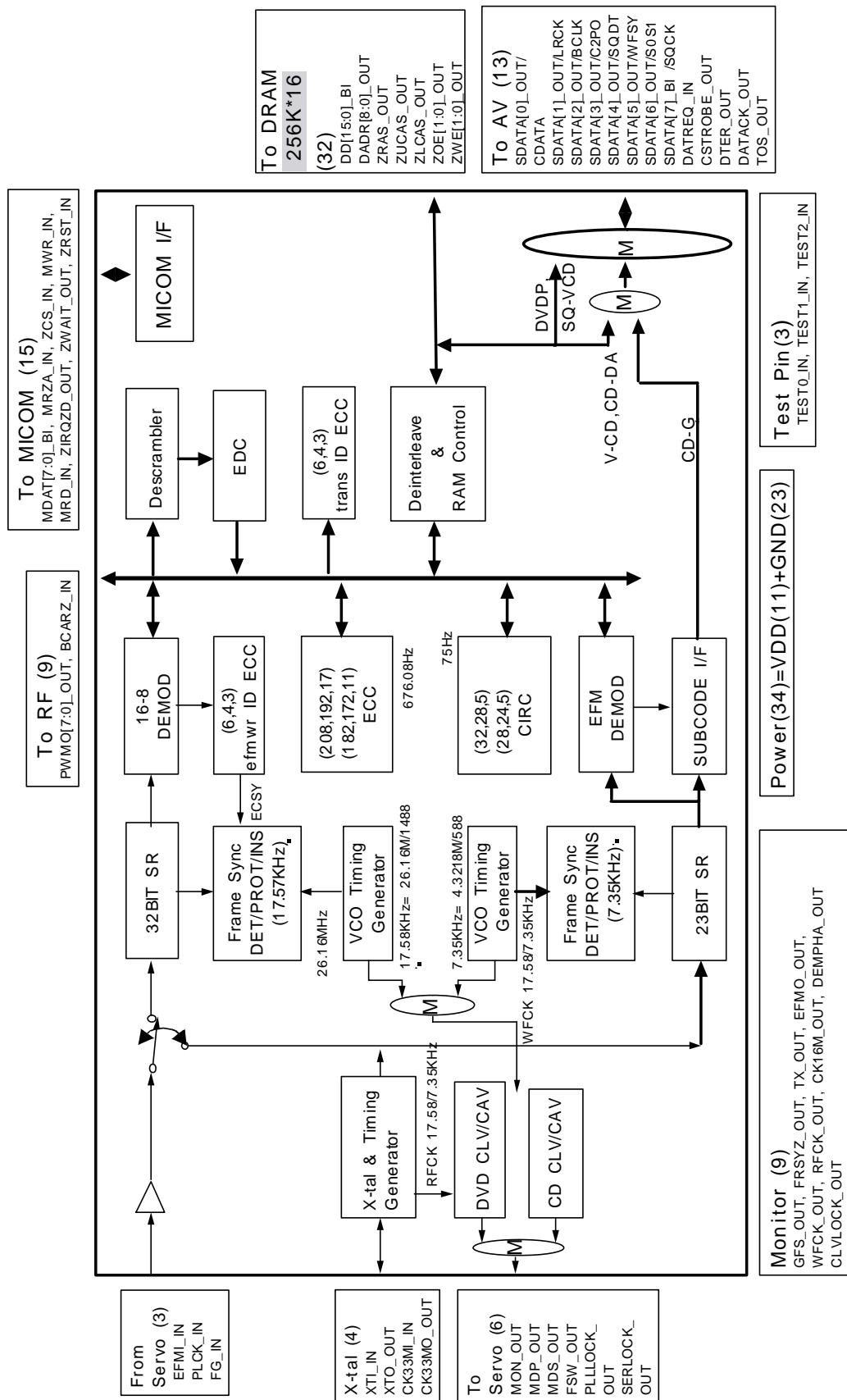
2-1-1 AIC2 (AK4324 ; Digital-to-Analog Converter)



PIN	I/O	NAME	FUNCTION	PIN	I/O	NAME	FUNCTION
1	-	DVSS	Digital ground pin	13	I	DIF0	Digital input format pin
2	I	DVDD	Digital power supply	14	I	DIF1	Digital input format pin
3	I	CKS	Master clock select pin (Internal pull-down pin) Nomal speed "L":MCLK = 256fs, "H":MCLK = 384fs Double speed "L":MCLK = 128fs, "H":MCLK = 192fs	15	I	DIF2	Digital input format pin
4	I	MCLK	Master clock input pin	16	O	AOUTR-	Rch negative analog output pin
5	I	PD	Power-Down mode pin. When at "L", the AK4324 is in power-down and is held in rest. The AK4324 should always be reset upon power-pin	17	O	AOUTR+	Rch positive analog output pin
6	I	BICK	Audio serial data input pin 64fs clock is recommended to be input on this pin	18	O	AOUTL-	Lch negative analog output pin
7	I	SDATA	Audio serial data input pin 2's complement MSB-first data is input on this pin.	19	O	AOUTL+	Lch positive analog output pin
8	I	LRCK	L/R clock pin.	20	-	AVSS	Analog ground pin
9	I	SMUTE	Soft mute pin When this pin goes "H", soft mute cycle is initiated When returning "L", the output mute releases.	21	O	VREF	Voltage reference input pin
10	I	DFS	Double speed sampling mode pin (Internal pull-down pin) "L":normal speed, "H":double speed	22	O	AVDD	Analog power supply pin.
11	I	DEMO	De-emphasis frequency select pin	23	O	DZFR	Rch zero input detect pin
12	I	DEM1	De-emphasis frequency select pin	24	O	DZFL	Lch zero input detect pin

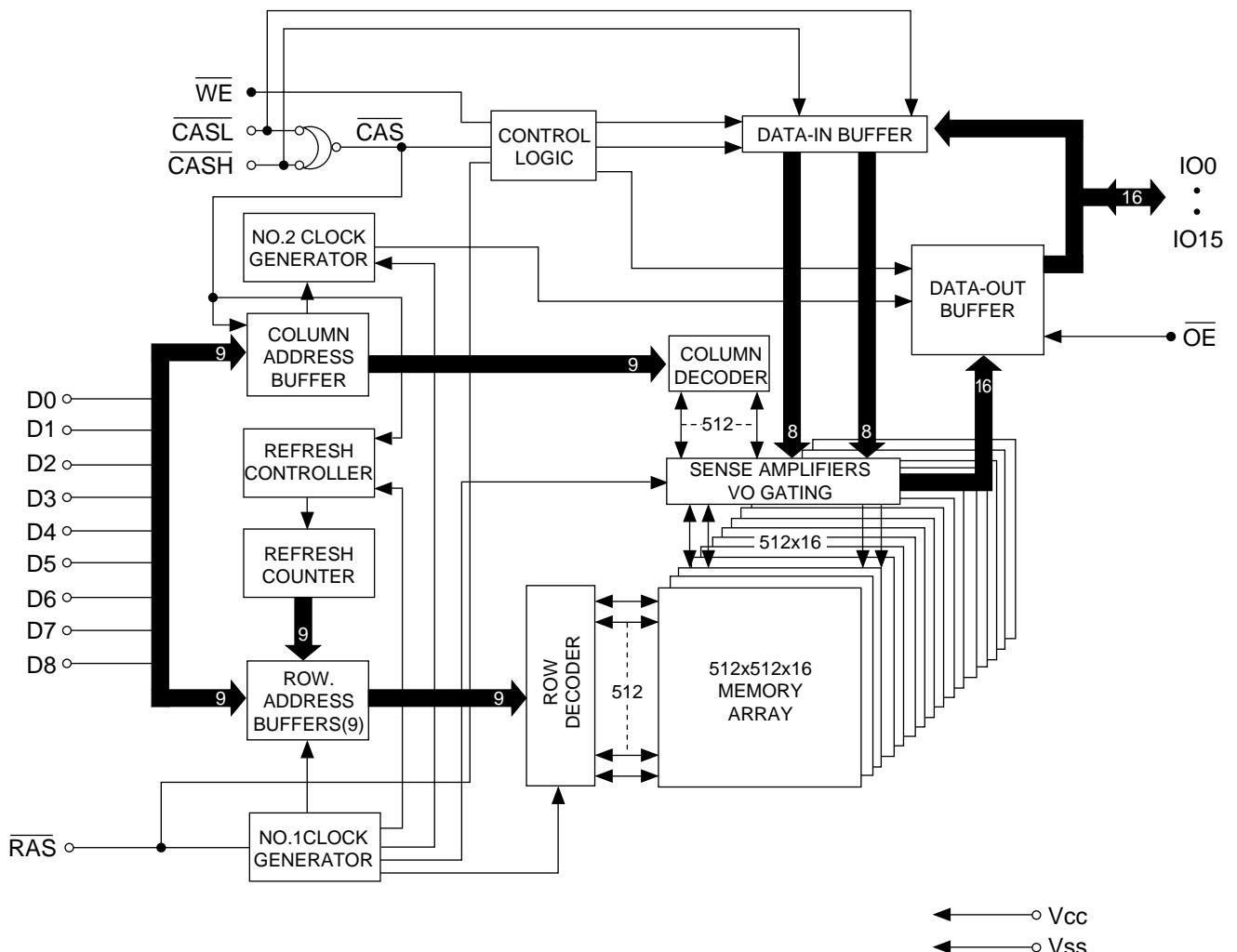
Note : All input pins except internal pull-down pins should not be left floating.

2-1-2 DIC1 (KS1453 ; Data Processor)



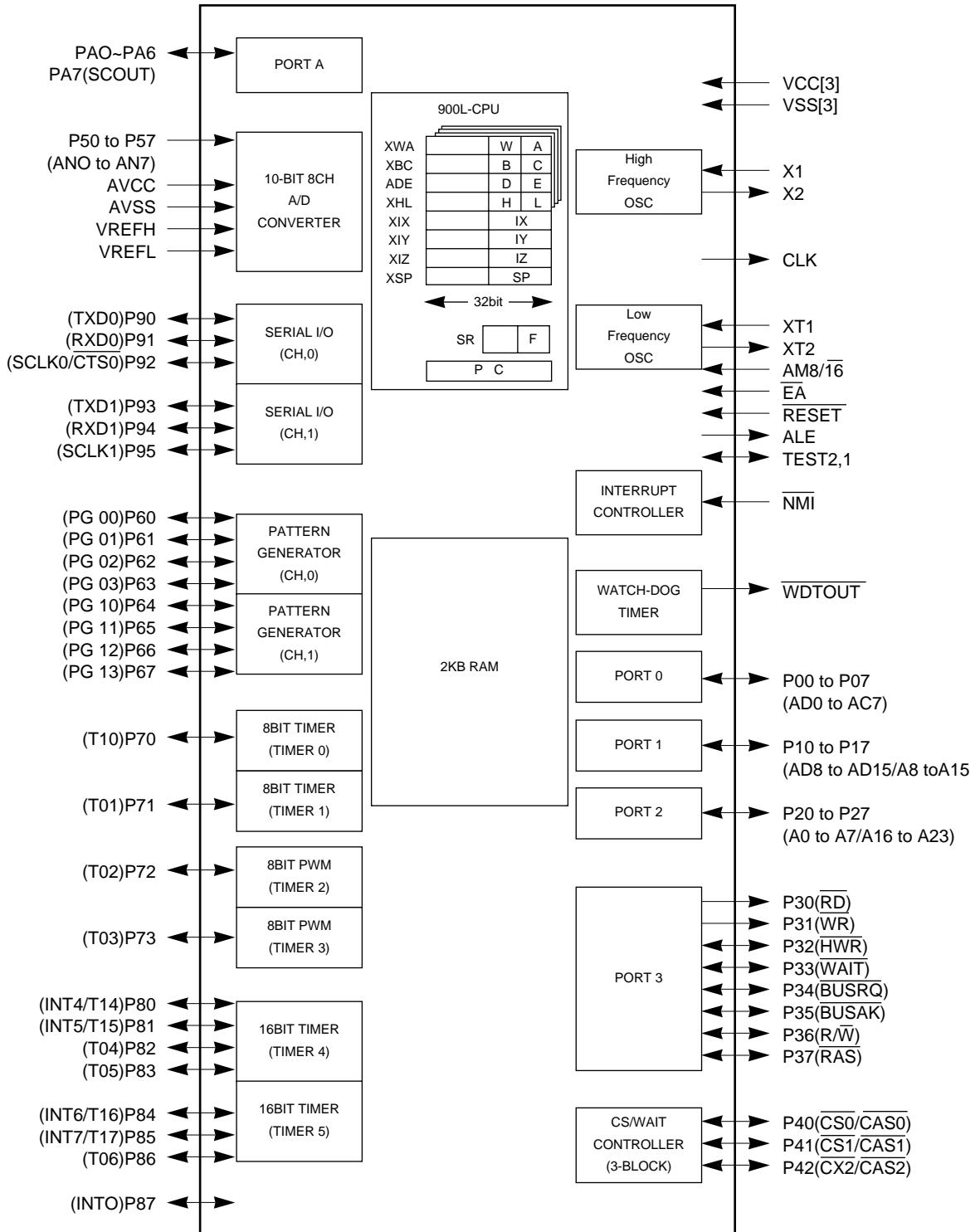
No.	Pin Name	Description	I/O	Notes	No.	Pin Name	Description	I/O	Notes
1	DVSS	Digital GND (0 V)			65	SDATA5_OUT	DVD Data/Subcode Frame Sync (WFSY)	O	AV Decoder
2	ZCS_IN	Chip Select (Active Low)	-	MICOM	66	SDATA6_OUT	DVD Data/Subcode Serial Clock (SOCK1)	O	AV Decoder
3	MZCA_IN	Micom Register Select (L REGISTER Hifi DATA)	-	MICOM	67	SDATA7_BI	DVD Data/Subcode Serial Clock (SOCK1)	B	AV Decoder
4	DVSS	Digital GND (0 V)			68	DVSS	Digital GND (0 V)		
5	MDAT7_BI	MICOM Data Bus	B	MICOM	69	CSTROBE_OUT	Data Strobe (Clock) Output	O	AV Decoder
6	MDAT6_BI	MICOM Data Bus	B	MICOM	70	DREQ_IN	Data Request from AV Decoder or ROM Decoder	-	AV Decoder
7	MDAT5_BI	MICOM Data Bus	B	MICOM	71	DTER_OUT	DVD Data Error Output	O	AV Decoder
8	MDAT4_BI	MICOM Data Bus	B	MICOM	72	DVSS	Digital GND (0 V)		
9	MDAT3_BI	MICOM Data Bus	B	MICOM	73	PWM07_OUT	PWM Output Signal	O	RF
10	MDAT2_BI	MICOM Data Bus	B	MICOM	74	PWM06_OUT	PWM Output Signal	O	RF
11	MDAT1_BI	MICOM Data Bus	B	MICOM	75	PWM05_OUT	PWM Output Signal	O	RF
12	MDAT0_BI	MICOM Data Bus	B	MICOM	76	PWM04_OUT	PWM Output Signal	O	RF
13	DVDD	Digital Power (+5V)			77	DVDD	Digital Power (+5 V)		
14	XTL_IN	System Clock Input for 26.16 MHz	-	XTAL	78	PWM03_OUT	PWM Output Signal	O	RF
15	XTO_OUT	System Clock Output for 26.16 MHz	O		79	PWM02_OUT	PWM Output Signal	O	RF
16	DVSS	Digital GND (0 V)			80	PWM01_OUT	PWM Output Signal	O	RF
17	DD15_BI	DRAM Data Bus	B	DRAM	81	PWM00_OUT	PWM Output Signal	O	RF
18	DD0_BI	DRAM Data Bus	B	DRAM	82	DVSS	Digital GND (0 V)		
19	DD14_BI	DRAM Data Bus	B	DRAM	83	DVSS	Digital GND (0 V)		
20	DD1_BI	DRAM Data Bus	B	DRAM	84	DVSS	Digital GND (0 V)		
21	DVSS	Digital GND (0 V)			85	DVDD	DIGITAL Power (+5 V)		
22	DD13_BI	DRAM Data Bus	B	DRAM	86	DVDD	DIGITAL Power (+5 V)		
23	DD2_BI	DRAM Data Bus	B	DRAM	87	DVSS	Digital GND (0 V)		
24	DD12_BI	DRAM Data Bus	B	DRAM	88	DVSS	Digital GND (0 V)		
25	DD3_BI	DRAM Data Bus	B	DRAM	89	DVSS	Digital GND (0 V)		
26	DVDD	Digital Power (+5V)			90	DVSS	Digital GND (0 V)		
27	DD11_BI	Digital Data Bus	B	DRAM	91	FRSTZ_OUT	Frame Sync Out	O	Monitor
28	DD4_BI	Digital Data Bus	B	DRAM	92	TX_OUT	Digital Out	O	Monitor
29	DD10_BI	Digital Data Bus	B	DRAM	93	GFS_OUT	Good Frame Sync Detection State Output (OK at H)	O	Monitor
30	DD5_BI	Digital Data Bus	B	DRAM	94	DVSS	Digital GND (0 V)		
31	DVSS	Digital GND (0 V)			95	CK32MI_IN	System Clock Input for 33.8688 MHz	-	X-tal
32	DD9_BI	DRAM Data Bus	B	DRAM	96	CK32MO_OUT	System Clock Output for 33.8688 MHz	O	X-tal
33	DD6_BI	DRAM Data Bus	B	DRAM	97	DVDD	Digital Power (+5 V)		
34	DD8_BI	DRAM Data Bus	B	DRAM	98	TEST0_IN	Test Mode Selection Terminal	-	
35	DD7_BI	DRAM Data Bus	B	DRAM	99	TEST1_IN	Test Mode Selection Terminal	-	
36	DVSS	Digital GND (0 V)			100	TEST2_IN	Test Mode Selection Terminal	-	
37	ZLCAS_OUT	DRAM Low Column Address Strobe	O	DRAM	101	EPM0_OUT	EFM Out	O	Monitor
38	ZUCAS_OUT	DRAM Upper Column Address Strobe	O	DRAM	102	WFCK_OUT	Write Frame Pulse	O	Monitor
39	ZWE1_OUT	DRAM Write Enable 1 (8M ONLY)	O	DRAM	103	RFCK_OUT	Reference Frame Pulse	O	Monitor
40	ZWE0_OUT	DRAM Write Enable 0 (4M, 8M, 16M)	O	DRAM	104	PLCK_IN	Phase Locked Clock	-	Servo
41	ZOE1_OUT	DRAM Output Enable (16M MODE DAD99)	O	DRAM	105	MDS_OUT	Spindle Motor Speed Control Signal (3-STATE)	O	Servo
42	DVDD	Digital Power (+5 V)			106	PULLOCK_OUT	Lock Signal for PLL	O	Servo
43	ZOE0_OUT	DRAM Output Enable 0	O	DRAM	107	CLVLOCK_OUT	Lock Signal for CLV	O	Monitor
44	ZRAS_OUT	DRAM Row Address Strobe	O	DRAM	108	SERLOCK_OUT	Lock Signal for SERVO	O	Servo
45	DADDR8_OUT	DRAM Address Bus	O	DRAM	109	MDP_OUT	Spindle Motor Phase Control Signal (3-STATE)	O	Servo
46	DADR7_OUT	DRAM Address Bus	O	DRAM	110	MDS_OUT	Spindle Motor Speed Control Signal (3-STATE)	O	Servo
47	DVSS	Digital GND (0 V)			111	DVSS	Digital GND (0 V)		
48	DADR0_OUT	DRAM Address Bus	O	DRAM	112	DVSS	Digital GND (0 V)		
49	DADR6_OUT	DRAM Address Bus	O	DRAM	113	MON_OUT	Spindle Motor Phase Filter Switching Output	O	Servo
50	DADR1_OUT	DRAM Address Bus	O	DRAM	114	FG_IN	Reference Signal for CAV	-	Servo
51	DADR5_OUT	DRAM Address Bus	O	DRAM	115	FSW_OUT	Spindle Motor Output Filter Switching Output (3-STATE)	O	Servo
52	DADR2_OUT	DRAM Address Bus	O	DRAM	116	EPM1_IN	EFM/EPM+ Signal Input	Notes	-
53	DADR4_OUT	DRAM Address Bus	O	DRAM	117	DVDD	Digital Power (+5 V)		
54	DADR3_OUT	DRAM Address Bus	O	DRAM	118	DVDD	Digital Power (+5 V)		
55	DVSS	Digital GND (0 V)			119	DVDD	Digital Power (+5 V)		
56	DVSS	Digital GND (0 V)			120	CK16M_OUT	CK32Ms 2 GHz Clock / 16.9344 MHz	O	Monitor
57	TOS_OUT	Top of Sector	O	AV Decoder	121	DEMPHA_OUT	High, when on Deemphasis	O	Monitor
58	DATACK_OUT	Data Acknowledge Signal Output	O	AV Decoder	122	BOARZ_IN	BCA Input Signal	-	RF
59	DVDD	Digital Power (+5 V)			123	DVSS	Digital GND (0 V)		
60	SDATA0_OUT	DVD Data/CD Data Bit Stream (CData)	O	AV Decoder	124	2RST_IN	Hardware Reset (Active Low)	-	MICOM
61	SDATA1_OUT	DVD Data/CD Data L/R Clock (LRCK)	O	AV Decoder	125	ZWRDZ_OUT	Micom Read / Write Access Wait (Wait at L)	O	MICOM
62	SDATA2_OUT	DVD Data/CD Data Bit Clock (BLCK)	O	AV Decoder	126	ZRQZD_OUT	Interrupt Request to Micom	O	MICOM
63	SDATA3_OUT	DVD Data/CD Data Error Flag (C2PO)	O	AV Decoder	127	MRD_IN	Micom Read Strobe (Active Low)	-	MICOM
64	SDATA4_OUT	DVD Data/Subcode Serial Data (SQDT)	O	AV Decoder	128	MWR_IN	Micom Write Strobe (Active Low)	-	MICOM

2-1-3 DIC2 (M11B416256A ; CMOS 256K x 16 DRAM)



PIN NO.	SYM.	TYPE	DESCRITION
16~19, 22~26	A0~A8	Input	Address Input
14	$\overline{\text{RAS}}$	Input	Row Address Strobe
28	$\overline{\text{CASH}}$	Input	Column Address Strobe/Upper Byte Control
29	$\overline{\text{CASL}}$	Input	Column Address Strobe/Lower Byte Control
13	$\overline{\text{WE}}$	Input	Write Enable
27	$\overline{\text{OE}}$	Input	Output Enable
2~5, 7~10, 31~34, 36~39	I/O0~I/O15	Input/Output	Data Input/Output
1, 6, 20	Vcc	Supply	Power, 5V
21, 35, 40	Vss	Ground	Ground
11, 12, 15, 30	NC	-	No Connect

2-1-4 MIC1 (TMP93CM41F ; Main Micom)

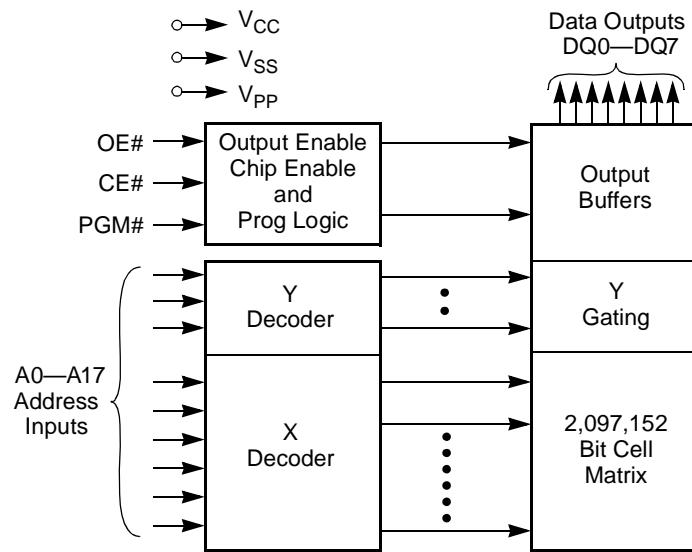


No	PORT NAME	ASSIGNED NAME	I/O	FUNCTION	No	PORT NAME	ASSIGNED NAME	I/O	FUNCTION
1	VREFL	GND	I	A/D Ref Input (U)	31	P96	XT1	0	-
2	AVSS	AGND	I	A/D GND input	32	P97	XT2	0	-
3	AVCC	-	I	A/D VCC input	33	TEST1	TEST1	-	Test pin connect to TEST2
4	/NMI	-	I	Non-maskable interrupt	34	TEST2	TEST2	-	Test pin connect to TEST1
5	P70	ZRS1	O	DSR H/W reset	35	PA0	ECK	O	EEPROM CLOCK
6	P71	MCK_SEL	O	Master clock select	36	PA1	EDT	I/O	EEPROM DATA I/O
7	P72	ZVA_RST	O	AV-DEC H/W reset	37	PA2	EMC	O	EEPROM WRITE PROTECT
8	P73	LED	O	Open/close blinking	38	PA3	-	O	-
9	/INT4	DVIDIN	I	Interrupt from AVDEC	39	PA4	-	O	-
10	INT5	SREQ	I	Interrupt from front micom	40	PA5	-	O	-
11	P82	OPEN	I	Open switch	41	PA6	-	O	-
12	P83	CLOSE	I	Close switch	42	PA7	-	O	-
13	/INT6	FBINT	I	Interrupt from spindle motor FG	43	ALE	ALE	O	Address latch enable
14	INT7	-	I	-	44	Vcc	VCC	-	-
15	P86	RREQ	O	Request to front micom	45	AD0	HA00	I/O	Address/Data 0
16	INTO	ZINT	I	Interrupt from DSP	46	AD1	HA01	I/O	Address/Data 1
17	TX00	RxD	O	Serial data output	47	AD2	HA02	I/O	Address/Data 2
18	RX00	TxD	I	Serial data input	48	AD3	HA03	I/O	Address/Data 3
19	SCLK0	SCLK	I	Serial data clock	49	AD4	HA04	I/O	Address/Data 4
20	TXD1	MD	O	RF control data	50	AD5	HA05	I/O	Address/Data 5
21	094	SFB	I/O	RF data latch	51	AD6	HA06	I/O	Address/Data 6
22	SCLK1	MC	O	RF control clock	52	AD7	HA07	I/O	Address/Data 7
23	AM8/16	AM8	I	Address mode (H: 8 bit mode)	53	A8	HA8	O	Address 8
24	CLK	CLK	O	Clock output (System clock-2)	54	A9	HA9	O	Address 9
25	Vcc	VCC	-	-	55	A10	HA10	O	Address 10
26	Vss	GND	-	-	56	A11	HA11	O	Address 11
27	X1	X1	I	High frequency OSC in	57	A12	HA12	O	Address 12
28	X2	X2	O	High frequency OSC out	58	A13	HA13	O	Address 13
29	/EA	/EA	I	External access CS41CS40	59	A14	HA14	O	Address 14
30	/RESET	/MRST	I	Master reset from FRONT	60	A15	HA15	O	Address 15

No	PORT NAME	ASSIGNED NAME	I/O	FUNCTION	No	PORT NAME	ASSIGNED NAME	I/O	FUNCTION
61	WDOUT	WDOUT	O	Watch dog timer output	82	/CS2	0	O	Chip select 2 (EROM, 4M Bit, 12KB)
62	VSS	GND	-	-	83	P60	-	I/O	-
63	Vcc	VCC	-	-	84	P61	TRX-IN	O	Tray in control output
64	A16	HA16	O	Address 16	85	P62	TRX-OUT	O	Tray out control output
65	A17	HA17	O	Address 17 (AV DECODER)	86	P63	SCL	O	IIC clock (VIDEO ENCODER)
66	A18	HA18	O	Address 18 (Data processor)	87	P64	SDA	I/O	IIC clock (VIDEO ENCODER)
67	A19	HA19	O	Address 19	88	P65	DAB	O	D-Servo IC data/Address select
68	A20	HA20	O	Address 20 (D. SERVO)	89	P66	CSB	O	D-Servo IC chip select
69	A21	HA21	O	Address 21	90	P67	RSTB	O	D-Servo IC reset
70	A22	HA22	O	Address 22	91	Vss	GND	-	-
71	A23	HA23	O	Address 23	92	P50	SCLK	-	LOCK monitor from DSP
72	/RD	/RD	O	/Read strobe	93	P51	TILT	I	Monitor signal
73	/WR	/WR	O	/Write strobe	94	P52	FR	I	Spindle direction from SP driver
74	P32	-	I/O	-	95	P53	SENSE	I	SENSE monitor from SERVO
75	/MWAIT	/MWAIT	I	/Wait	96	P54	FOX8	I	Focus lock monitor from RF
76	P34	RCODE	I/O	-	97	P55	RFRP1	I	Tracking lock monitor from SERVO
77	P35	-	I/O	-	98	P56	RF0	I	RF sum signal
78	P36	-	O	-	99	P57	VREF0	I	-
79	P37	-	I/O	-	100	VREFH	AVCC	I	A/D Ref input (H)

No	PORT NAME	ASSIGNED NAME	I/O	FUNCTION
1	VREFL	GND	I	A/D Ref Input (U)
2	AVSS	AGND	I	A/D GND input
3	AVCC	-	I	A/D VCC input
4	/NMI	-	I	Non-maskable interrupt
5	P70	ZRS1	O	DSR H/W reset
6	P71	MCK_SEL	O	Master clock select
7	P72	ZVA_RST	O	AV-DEC H/W reset
8	P73	LED	O	Open/close blinking
9	/INT4	DVIDIN	I	Interrupt from AVDEC
10	INT5	SREQ	I	Interrupt from front micom
11	P82	OPEN	I	Open switch
12	P83	CLOSE	I	Close switch
13	/INT6	FBINT	I	Interrupt from spindle motor FG
14	INT7	-	I	-
15	P86	RREQ	O	Request to front micom
16	INTO	ZINT	I	Interrupt from DSP
17	TX00	RxD	O	Serial data output
18	RX00	TxD	I	Serial data input
19	SCLK0	SCLK	I	Serial data clock
20	TXD1	MD	O	RF control data
21	094	SFB	I/O	RF data latch
22	SCLK1	MC	O	RF control clock
23	AM8/16	AM8	I	Address mode (H: 8 bit mode)
24	CLK	CLK	O	Clock output (System clock-2)
25	Vcc	VCC	-	-
26	Vss	GND	-	-
27	X1	X1	I	High frequency OSC in
28	X2	X2	O	High frequency OSC out
29	/EA	/EA	I	External access CS41CS40
30	/RESET	/MRST	I	Master reset from FRONT

2-1-5 MIC8 (AM27C020 ; 2MB(256K x 8-bit) CMOS EPROM)

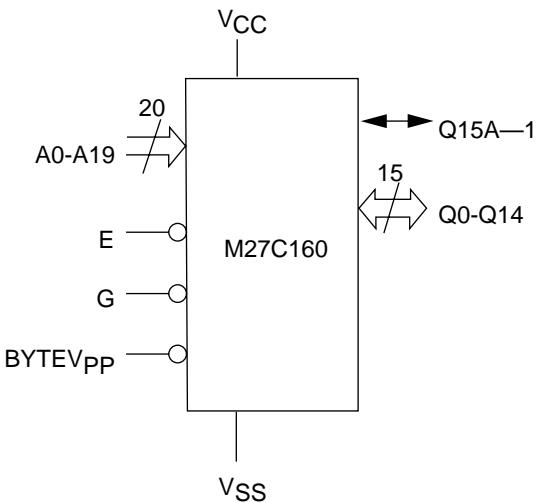


V _{PP}	1	32	V _{CC}
A16	2	31	PGM# (P#)
A15	3	30	A17
A12	4	29	A14
A7	5	28	A13
A6	6	27	A8
A5	7	26	A9
A4	8	25	A11
A3	9	24	OE# (G#)
A2	10	23	A10
A1	11	22	CE# (E#)
A0	12	21	DQ7
DQ0	13	20	DQ6
DQ1	14	19	DQ5
DQ2	15	18	DQ4
V _{SS}	16	17	DQ3

PIN DESIGNATIONS

A0—A17	= Address Inputs
CE# (E#)	= Chip Enable Input
DQ0—DQ7	= Data Input/Outputs
OE# (G#)	= Output Enable Input
PGM# (P#)	= Program Enable Input
V _{CC}	= V _{CC} Supply Voltage
V _{PP}	= Program Voltage Input
V _{SS}	= Ground

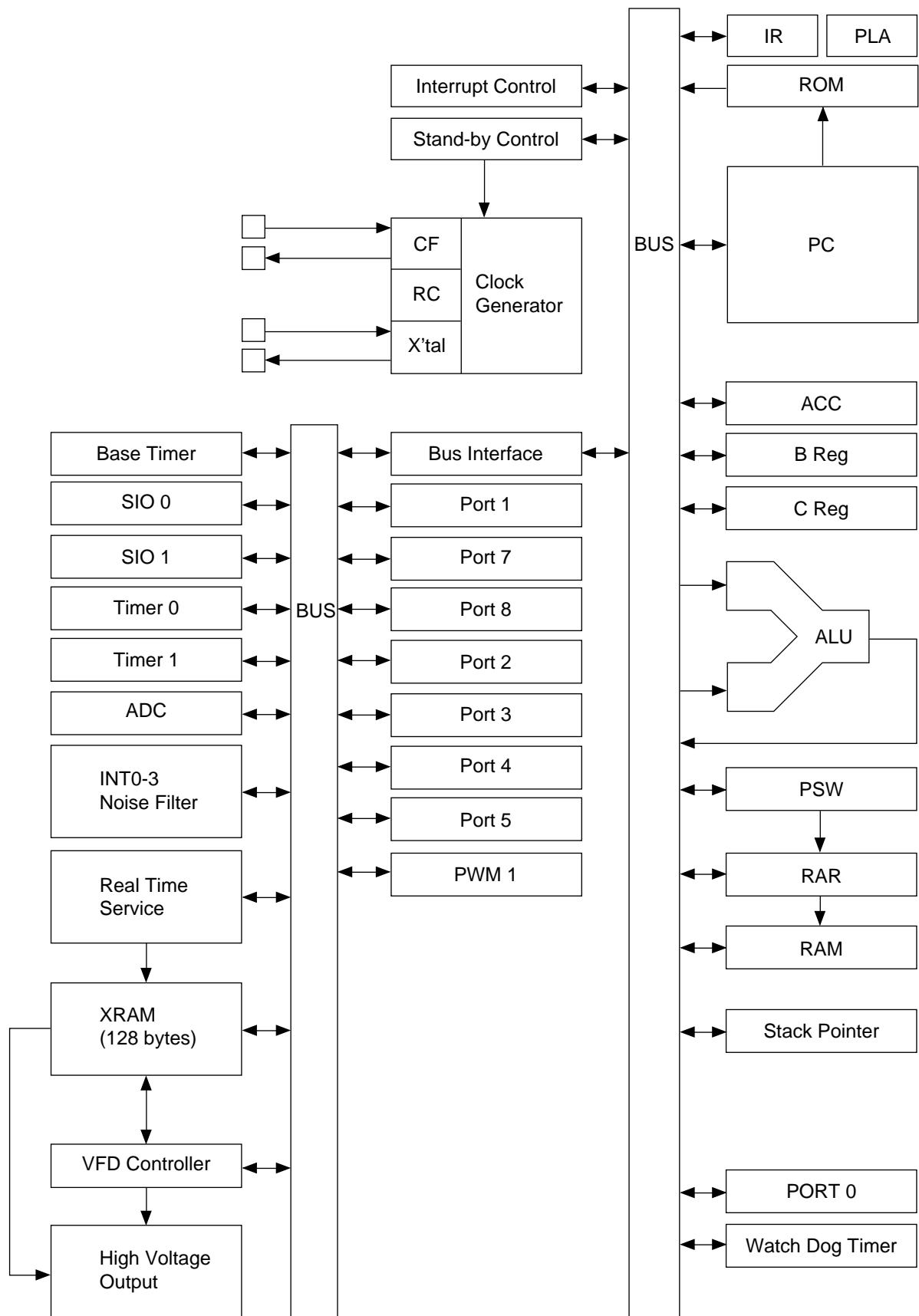
2-1-6 NIC11 (M27C160 ; 16Mbit EPROM)



A18	1	42	A19
A17	2	41	A8
A7	3	40	A9
A6	4	39	A10
A5	5	38	A11
A4	6	37	A12
A3	7	36	A13
A2	8	35	A14
A1	9	34	A15
A0	10	33	A16
E	11	32	BYTEVPP
VSS	12	31	VSS
G	13	30	Q15A-1
Q0	14	29	Q7
Q8	15	28	Q14
Q1	16	27	Q6
Q9	17	26	Q13
Q2	18	25	Q5
Q10	19	24	Q12
Q3	20	23	Q4
Q11	21	22	VCC

A0-A19	Address Inputs
Q0-Q7	Data Outputs
Q8-Q14	Data Outputs
Q15A—1	Data Output / Address Input
E	Chip Enable
G	Output Enable
BYTEVPP	Byte Mode / Program Supply
VCC	Supply Voltage
VSS	Ground

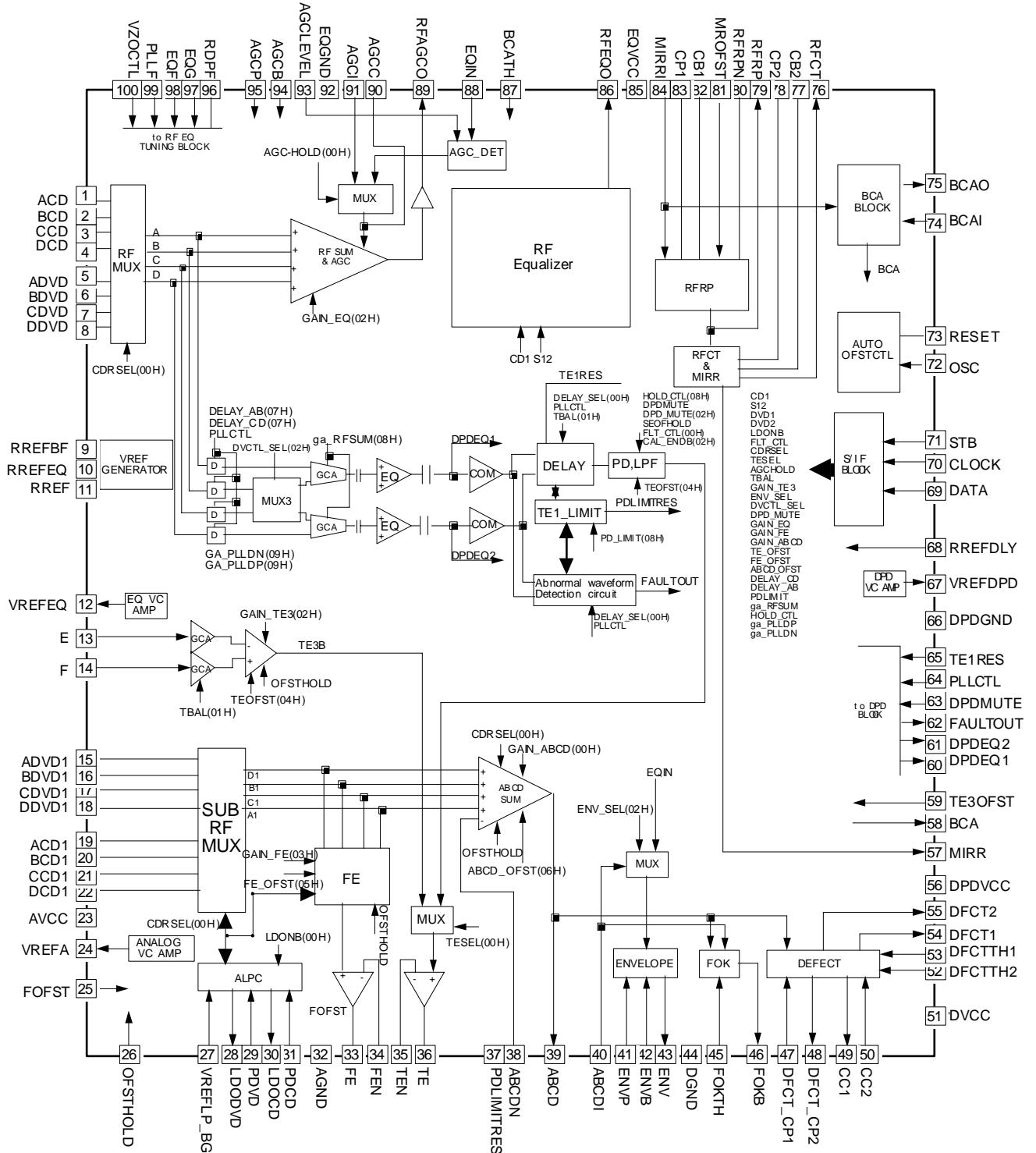
2-1-7 FIC1 (LC86P6232 ; Front Micom)



NO	PORT NAME	TYPE	ASSIGNED NAME	DESCRIPTION	REMARK	DESCRIPTION	REMARK
1	P52	0	MRST	Front end reset	RESET NC	SEG7	FLT SEGMENT CONTROL
2	PWM1	-	TP1			SEG8	FLT SEGMENT CONTROL
3	P20	0	CS1	Chip Select 1	AK4393	SEG9	FLT SEGMENT CONTROL
4	P21	0	CCLK	Control Data Clock	AK4393/AK4356	SEG10	FLT SEGMENT CONTROL
5	P22	0	CDTI	Control Data	AK4393/AK4356	SEG11	FLT SEGMENT CONTROL
6	P23	0	CS2	Chip Select 2	AK4356	S23	FLT SEGMENT CONTROL
7	P24	0	DARST	PD(Power Down)	AK4393	S24	FLT SEGMENT CONTROL
8	P25	0	DARST 1	PD(Power Down)	AK4356	S25	FLT SEGMENT CONTROL
9	P26	0	VMUTE0	BA7660 MUTE(VIC2)	VIDEO(RESERVED)	S26	FLT SEGMENT CONTROL
10	P27	0	VMUTE1	BA7660 MUTE(VC1)	VIDEO(RESERVED)	S27	FLT SEGMENT CONTROL
11	TEST1	-	TP4	NC		S28	FLT SEGMENT CONTROL
12	*RES	I	*RES	Reset		S29	FLT SEGMENT CONTROL
13	XT1	-	GND	Low Frequency OSC in		S30	FLT SEGMENT CONTROL
14	XT2	-	TP5	Low Frequency OSC out		S31	FLT SEGMENT CONTROL
15	VSS	-	GND			S320	FLT SEGMENT CONTROL
16	CF1	I	-	High Frequency OSC in		SEG12	FLT SEGMENT CONTROL
17	CF2	0	-	High Frequency OSC out		SEG13	FLT SEGMENT CONTROL
18	VDD	-	VDD			SEG14	FLT SEGMENT CONTROL
19	AN0/P80	I	ECHO_VR	ECHO volume A/D input	KARAOKE	P00	HARDWARE MODE SELECT
20	AN1/P81	I	MIC_DET	MIC detect	KARAOKE	P01	HARDWARE MODE SELECT
21	AN2/P82	-	TP19	NC		P02	HARDWARE MODE SELECT
22	AN3/P83	I	KEY0	KEY SCAN	TACT SW	P03	HARDWARE MODE SELECT
23	AN4/P84	I	KEY1	KEY SCAN	TACT SW	P04	HARDWARE MODE SELECT
24	AN5/P85	I	KEY2	KEY SCAN	TACT SW	P05	HARDWARE MODE SELECT
25	AN6/P86	-	NC	NC		P06	HARDWARE MODE SELECT
26	AN7/P87	-	NC	NC		P07	HARDWARE MODE SELECT
27	P70/IN TO	I	RRQ	Request to Front Micom	MAIN MICOM	P10/S00	SERIAL DATA OUT
28	P71/INT1	-	TP25	NC		P11/S10	SERIAL DATA IN
29	P72/IN T2	-	TP26	NC		P12/SC K0	SERIAL CLOCK
30	P73/INT3	I	REMOCON	REMOCON data in	REMOCON EYE	P08	SERIAL DATA IN
31	S0/T0	0	GRID11	FILT GRID CONTROL	FLT	P30	JOG/SHUTTLE
32	S1/T1	0	GRID10	FILT GRID CONTROL	FLT	P31	JOG/SHUTTLE
33	S2/T2	0	GRID9	FILT GRID CONTROL	FLT	P32	JOG/SHUTTLE
34	S3/T3	0	GRID8	FILT GRID CONTROL	FLT	P33	JOG/SHUTTLE
35	S4/T4	0	GRID7	FILT GRID CONTROL	FLT	P34	JOG/SHUTTLE
36	S5/T5	0	GRID6	FILT GRID CONTROL	FLT	P35	JOG/SHUTTLE
37	S6/T6	0	GRID5	FILT GRID CONTROL	FLT	P36	JOG/SHUTTLE
38	S7/T7	0	GRID4	FILT GRID CONTROL	FLT	P37	VIDEO OUT SEL.
39	S8/T8	0	GRID3	FILT GRID CONTROL	FLT	VSS	VIDEO OUT SEL.
40	S9/T9	0	GRID2	FILT GRID CONTROL	FLT	VDD	VIDEO OUT SEL.
41	S10/T10	0	GRID1	FILT GRID CONTROL	FLT	P40	RGBCTL
42	S11/T11	0				0	SCART CONTROL
43	S12/T12	0	SEG1	FILT SEGMENT CONTROL	FLT	P41	SCART JACK
44	S13/T13	0	SEG2	FILT SEGMENT CONTROL	FLT	P42	SCART JACK
45	S14/T14	0	SEG3	FILT SEGMENT CONTROL	FLT	P43	SCART JACK
46	S15/T15	0	SEG4	FILT SEGMENT CONTROL	FLT	P44	request to main micom
47	VOD	-	+5V			P45	POWER SAVE MODE
48	VP	-	-28V			P46	AMUTE1
49	S16	0	SEG5	FILT SEGMENT CONTROL	FLT	P47	AMUTE0
50	S17	0	SEG6	FILT SEGMENT CONTROL	FLT	P50	LED
						P51	POWER ON/OFF

NO	PORT NAME	TYPE	ASSIGNED NAME	DESCRIPTION	REMARK	DESCRIPTION	REMARK
1	P52	0	MRST	Front end reset	RESET NC	SEG7	FLT SEGMENT CONTROL
2	PWM1	-	TP1			SEG8	FLT SEGMENT CONTROL
3	P20	0	CS1	Chip Select 1	AK4393	SEG9	FLT SEGMENT CONTROL
4	P21	0	CCLK	Control Data Clock	AK4393/AK4356	SEG10	FLT SEGMENT CONTROL
5	P22	0	CDTI	Control Data	AK4393/AK4356	SEG11	FLT SEGMENT CONTROL
6	P23	0	CS2	Chip Select 2	AK4356	S23	FLT SEGMENT CONTROL
7	P24	0	DARST	PD(Power Down)	AK4393	S24	FLT SEGMENT CONTROL
8	P25	0	DARST 1	PD(Power Down)	AK4356	S25	FLT SEGMENT CONTROL
9	P26	0	VMUTE0	BA7660 MUTE(VIC2)	VIDEO(RESERVED)	S26	FLT SEGMENT CONTROL
10	P27	0	VMUTE1	BA7660 MUTE(VC1)	VIDEO(RESERVED)	S27	FLT SEGMENT CONTROL
11	TEST1	-	TP4	NC		S28	FLT SEGMENT CONTROL
12	*RES	I	*RES	Reset		S29	FLT SEGMENT CONTROL
13	XT1	-	GND	Low Frequency OSC in		S30	FLT SEGMENT CONTROL
14	XT2	-	TP5	Low Frequency OSC out		S31	FLT SEGMENT CONTROL
15	VSS	-	GND			S320	FLT SEGMENT CONTROL
16	CF1	I	-	High Frequency OSC in		SEG12	FLT SEGMENT CONTROL
17	CF2	0	-	High Frequency OSC out		SEG13	FLT SEGMENT CONTROL
18	VDD	-	VDD			SEG14	FLT SEGMENT CONTROL
19	AN0/P80	I	ECHO_VR	ECHO volume A/D input	KARAOKE	P00	HARDWARE MODE SELECT
20	AN1/P81	I	MIC_DET	MIC detect	KARAOKE	P01	HARDWARE MODE SELECT
21	AN2/P82	-	TP19	NC		P02	HARDWARE MODE SELECT
22	AN3/P83	I	KEY0	KEY SCAN	TACT SW	P03	HARDWARE MODE SELECT
23	AN4/P84	I	KEY1	KEY SCAN	TACT SW	P04	HARDWARE MODE SELECT
24	AN5/P85	I	KEY2	KEY SCAN	TACT SW	P05	HARDWARE MODE SELECT
25	AN6/P86	-	NC	NC		P06	HARDWARE MODE SELECT
26	AN7/P87	-	NC	NC		P07	HARDWARE MODE SELECT
27	P70/IN TO	I	RRQ	Request to Front Micom	MAIN MICOM	P10/S00	SERIAL DATA OUT
28	P71/INT1	-	TP25	NC		P11/S10	SERIAL DATA IN
29	P72/IN T2	-	TP26	NC		P12/SC K0	SERIAL CLOCK
30	P73/INT3	I	REMOCON	REMOCON data in	REMOCON EYE	P08	SERIAL DATA IN
31	S0/T0	0	GRID11	FILT GRID CONTROL	FLT	P30	JOG/SHUTTLE
32	S1/T1	0	GRID10	FILT GRID CONTROL	FLT	P31	JOG/SHUTTLE
33	S2/T2	0	GRID9	FILT GRID CONTROL	FLT	P32	JOG/SHUTTLE
34	S3/T3	0	GRID8	FILT GRID CONTROL	FLT	P33	JOG/SHUTTLE
35	S4/T4	0	GRID7	FILT GRID CONTROL	FLT	P34	JOG/SHUTTLE
36	S5/T5	0	GRID6	FILT GRID CONTROL	FLT	P35	JOG/SHUTTLE
37	S6/T6	0	GRID5	FILT GRID CONTROL	FLT	P36	JOG/SHUTTLE
38	S7/T7	0	GRID4	FILT GRID CONTROL	FLT	P37	VIDEO OUT SEL.
39	S8/T8	0	GRID3	FILT GRID CONTROL	FLT	VSS	VIDEO OUT SEL.
40	S9/T9	0	GRID2	FILT GRID CONTROL	FLT	VDD	VIDEO OUT SEL.
41	S10/T10	0	GRID1	FILT GRID CONTROL	FLT	P40	RGBCTL
42	S11/T11	0				0	SCART CONTROL
43	S12/T12	0	SEG1	FILT SEGMENT CONTROL	FLT	P41	SCART JACK
44	S13/T13	0	SEG2	FILT SEGMENT CONTROL	FLT	P42	SCART JACK
45	S14/T14	0	SEG3	FILT SEGMENT CONTROL	FLT	P43	SCART JACK
46	S15/T15	0	SEG4	FILT SEGMENT CONTROL	FLT	P44	request to main micom
47	VOD	-	+5V			P45	POWER SAVE MODE
48	VP	-	-28V			P46	AMUTE1
49	S16	0	SEG5	FILT SEGMENT CONTROL	FLT	P47	AMUTE0
50	S17	0	SEG6	FILT SEGMENT CONTROL	FLT	P48	FRONT MUTE
						P49	LED
						P50	POWER ON/OFF

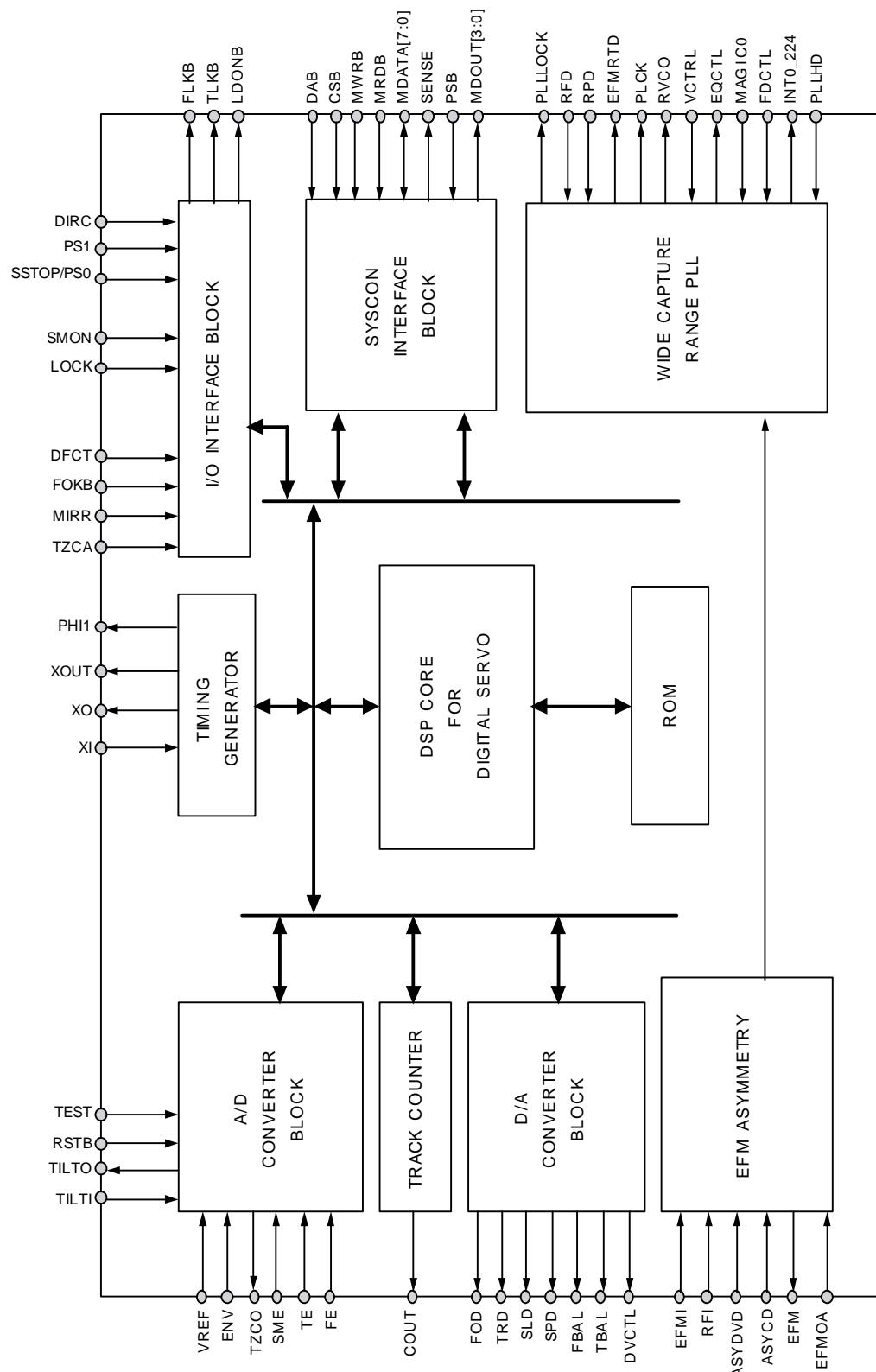
2-1-8 RIC1 (KS1461 ; RF Signal Processor)



Pin No.	Pin Name	I/O	Description	Related Block	Related Part
1	ACD	I	Optical main beam A, AC Coupling input terminals for CD of RF block	PRE AMP	P/U
2	BCD	I	Optical main beam B, AC Coupling input terminals for CD of RF	PRE AMP	P/U
3	CCD	I	Optical main beam C, AC Coupling input terminals for CD of RF block	PRE AMP	P/U
4	DDC	I	Optical main beam D, AC Coupling input terminals for CD of RF block	PRE AMP	P/U
5	ADVD	I	Optical main beam A, AC Coupling input terminals for DVD of RF block	PRE AMP	P/U
6	BDVD	I	Optical main beam B, AC Coupling input terminals for DVD of RF	PRE AMP	P/U
7	CDVD	I	Optical main beam C, AC Coupling input terminals for DVD of RF block	PRE AMP	P/U
8	DDVD	I	Optical main beam D, AC Coupling input terminals for DVD of RF block	PRE AMP	P/U
9	RREFBF	-	RF AMP I/O buffer bias resistance connection terminal	RF AMP	-
10	RREFEQ	-	RF EQ BIAS resistance connection terminal	RF EQ	-
11	RREF	-	Analog Block bias resistance connection terminal	ANALOG	-
12	VREFEQ	-	CAP connection terminal for RF EQ Center voltage	EQ VC AMP	-
13	E	I	CD Optical sub beam E input terminal for Servos	TE 3B	P/U
14	F	I	CD Optical sub beam F input terminal for Servos	TE 3B	P/U
15	ADVD1	I	Optical main beam A input terminal for DVD of Servo block	SERVO AMP	P/U
16	BDVD1	I	Optical main beam B input terminal for DVD of Servo block	SERVO AMP	P/U
17	CDVD1	I	Optical main beam C input terminal for DVD of Servo block	SERVO AMP	P/U
18	DDVD1	I	Optical main beam D input terminal for DVD of Servo block	SERVO AMP	P/U
19	ACD1	I	Optical main beam A input terminal for CD of Servo block	SERVO AMP	P/U
20	BCD1	I	Optical main beam B input terminal for CD of Servo block	SERVO AMP	P/U
21	CCD1	I	Optical main beam C input terminal for CD of Servo block	SERVO AMP	P/U
22	DDCD1	I	Optical main beam D input terminal for CD of Servo block	SERVO AMP	P/U
23	AVCC	P	Power voltage input terminal for Analog Part	ANALOG	-
24	VREFA	I/O	CAP connection terminal for Analog Part center voltage Uses an external block	ANA VC AMP	SERVO
25	FOFST	-	CAP connection terminal (open) for Focus Auto Offsets	FE AMP	-
26	OFSTHOLD	I	On/Off terminal for Auto Offset Block. (L: Auto Offset Adjustments, H: Serial Offset Adjustments)	OFSTCTL	MICOM
27	VREFLP_BGI	I	Band gap voltage input block for ALPC	ALPC	-
28	LDODVD	O	Optical Laser Diodes operation voltage output terminal for DVD	ALPC	P/U
29	PPDVD	I	Optical Laser Monitor Diode voltage input terminal for DVD	ALPC	P/U
30	LDOCD	O	Optical Laser Diode operating voltage output terminal for CD	ALPC	P/U
31	PDCCD	I	Optical Laser Monitor Diode voltage input terminal for CD	ALPC	P/U
32	AGND	P	Power GND terminal for Analog Part	ANALOG	-
33	FE	O	FE AMP output terminal	FE AMP	DSSP
34	FEN	I	Input terminal for selecting FE AMP Gain	FE AMP	-
35	TEN	I	Input terminal for selecting TE AMP Gain	TE AMP	-
36	TE	O	TE AMP output terminal	TE AMP	DSSP
37	PDLIMITRES	-	Bias resistance terminal for PDLIMIT	DPD	-
38	ABCDN	I	ABCD AMP for selecting Gain (-) input terminal	ABCD AMP	-
39	ABCD	O	ABCD AMP output terminal	ABCD AMP	-
40	ABCDI	I	ABCD AC Coupling input terminal for servo monitor	SERVO MONIT	-
41	ENVP	-	CAP connection terminal for selecting the RC value of Peak Hold for detecting RF Envelopes	RF ENV	-
42	ENVB	-	CAP connection terminal for selecting the RC value of Bottom Hold for detecting RF Envelopes	RF ENV	-
43	ENV	O	RF Envelope Detect Output terminal	RF ENV	DSSP
44	DGND	P	Power GND input terminal for digital circuits	DIGITAL	-
45	FOKTH	I	Focus OK comparating level input terminal	FOKB	-
46	FOKB	O	Focus OK comparator output terminal (L: Focus OK)	FOKB	DSSP
47	DFCT_C1	-	Connection terminal for RC value of Peak Hold, for selecting the maximum time for Servo signal	DFCT	-
48	DFCT_C2	-	Connection terminal for RC value of Peak Hold, for selecting the minimum defect time for PLL	DFCT	-
49	CC1	O	Peak Hold Output terminal for selecting the minimum Defect time for Defect	DFCT	-
50	CC2	I	Peak Hold AC Coupling Input terminal for Defect	DFCT	-
51	DVCC	P	Power voltage input terminal for digital circuit	DIGITAL	-
52	DFCTTH2	-	Resistance connection terminal for selecting the Defect Comparat- ing Level for PLL	DEFECT	-
53	DFCTTH1	-	Resistance connection terminal for selecting the Defect Comparat- ing Level for Servo	DEFECT	-
54	DFCT1	O	Defect output terminal for Servo	DEFECT	DSSP
55	DFCT2	O	Defect output terminal for PLL	DEFECT	PLL
56	DPDVCC	P	Power voltage input terminal for DPD TE	DPD	-
57	MIRR	O	Mirror output terminal	MIRR	DSSP
58	BCA	O	BCA output terminal	BCA	DSP

Pin No.	Pin Name	I/O	Description	Related Block	Related Part
59	TE30FST	-	Cap connection terminal (open) for 3B TE Offset	3B TE AMP	-
60	DPDEQ1	O	DPD EQ (A+C) output terminal	DPD	-
61	DPDEQ2	O	DPD EQ (B+D) output terminal	DPD	-
62	FAULTOUT	O	DPD abnormal wave form output terminal (monitor)	DPD	-
63	DPDMUTE	I	DPD TE MUTE control terminal (H: Mute)	DPD	MICOM
64	PLLCTL	I	DPD TE PLL variable input terminal	DPD	SERVO
65	TE1RES	I	DPD TE PLL variable bias resistance	DPD	-
66	DPDGND	P	Power GND input terminal for DPD TE	DPD	-
67	VREFDPD	O	CAP connection terminal for DPD TE center voltage	DPD VC AMP	-
68	RREFDLY	-	Bias resistance connection terminal for Delay Block	Delay Block	-
69	DATA	I	Data input terminal	Serial Interface	MICOM
70	CLOCK	I	Clock input terminal	Serial Interface	MICOM
71	STB	I	Data Enable input terminal	Serial Interface	MICOM
72	OSC	I	Input terminal for RC value of OSC, for Auto Offset Block	Auto OFSTCTL	-
73	RESET	I	Reset input terminal (L: Reset) for Auto Offset Block	Auto OFSTCTL	MICOM
74	BCAI	I	BCA Filter1	BCA	-
75	BCAO	O	BCA Filter2	BCA	-
76	RFCT	O	RF Ripple Center voltage output terminal for Mirror	MIRROR	DSSP
77	CB2	-	CAP connection terminal of RC value of Bottom Hold, for RFCT generation	MIRROR	-
78	CP2	-	CAP connection terminal of RC value of Peak Hold, for RFCT gen- eration	MIRROR	-
79	RFRP	O	RF Ripple Amp output terminal for Mirror	MIRROR	DSSP
80	RFRPN	I	Input terminal for selecting RFRP Amp gain	MIRROR	-
81	MROFST	I	RF Ripple Offset control terminal for Mirror	MIRROR	-
82	CB1	-	RC connection terminal of RC value of Bottom Hold, for RFRP generation	MIRROR	-
83	CP1	-	RC connection terminal of RC value of Peak Hold, for RFRP gen- eration	MIRROR	-
84	MIRRI	I	Input terminal for MIRR signal generation	MIRROR	-
85	EQVCC	P	Power voltage input signal for RF EQ	RF EQ	-
86	RFEQ0	O	RF EQ output terminal	RF EQ	PLL
87	BCATH	I	BCA Comparating Level control terminal	BCA	DSP
88	EQIN	I	RFAGCO input terminal for RF EQ	RFEQ,RFENV	DSSP
89	RFAGCO	O	RF AGC AMP output terminal	RF AGC	-
90	AGCC	-	CAP connection terminal for time constant of AGC	RF AGC	-
91	AGCI	I	AGC voltage input terminal while in AGC hold	RF AGC	-
92	EQGND	P	Power GND input terminal for RF EQ	RF EQ	-
93	AGCLEVEL	I	AGC Level control voltage input terminal (3.5 V) while in AGC hold off	RF AGC	-
94	AGCB	-	RC connection terminal for RC value of Bottom Hold, for RF AGC	RF AGC	-
95	AGCP	-	RC connection terminal for RC value of Peak Hold, for RF AGC	RF AGC	-
96	RDPF	-	Bias resistance connection terminal for selecting RF EQ frequency	RF EQ	-
97	EQG	I	RF EQ Boost Gain control voltage input terminal	RF EQ	DSSP
98	EQF	I	RF EQ Peak Frequency control voltage input terminal	RF EQ	DSSP
99	PLLF	I	Wide-band PLL compatible RF EQ Peak Frequency Control termi- nal	RF EQ	DSSP
100	VZOCTL	I	RF EQ zero control terminal	RF EQ	DSSP

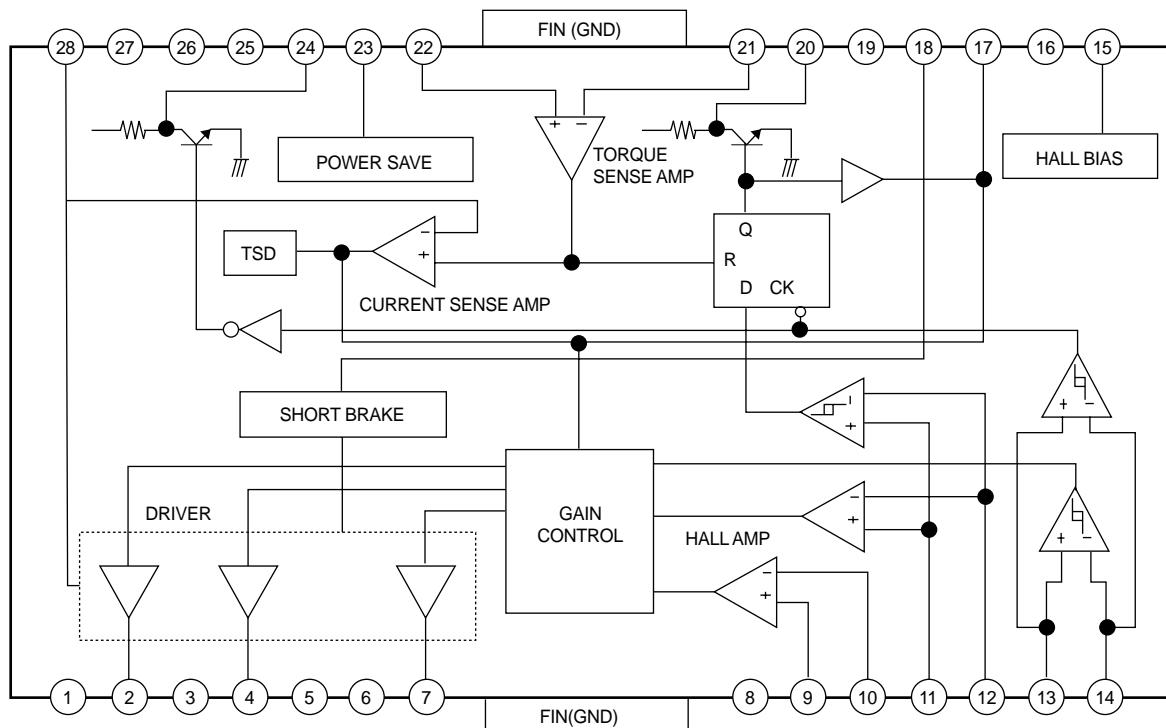
2-1-9 SIC1 (KS1452 ; Servo Processor)



No	Name	I/O	Description	No	Name	I/O	Description
1	MDOU3	O	Mode data3 out controlled by micom	41	PVDD	P	PLL logic block VDD power supply pin
2	SSTOP/PS0PS1	I	Limit switch/sled position sensor input pin0	42	PLCK	O	PLCK
3	PS1	I	Sled motor position sensor input pin1	43	PLLLOCK	O	Frequency lock detect output (H: lock, L: unlock)
4	TEST	I	Test pin (L: normal/H: test)	44	EFMRTD	O	Latched EFM output signal
5	COUT	O	Counter clock	45	PVSS	P	PLL logic block VSS power supply pin
6	FLKB	O	Focus servo lock signal output pin	46	R/VCO	I	Resistor pin for VCO gain
7	TLKB	O	Tracking servo lock signal output pin	47	RFD	I	Gain adjust resistor for frequency detector
8	PSB	I	0: 1 Bit, 1: 8 Bit	48	RPD	I	Gain adjust resistor for phase detector
9	RSTB	I	System reset signal input pin	49	VCTL	I	control voltage for VCO
10	CSB	I	MICOM chip select pin	50	MAGIC0	I	Input for controlling hysteresis of the FD output (for testing)
11	DAB	I	MICOM data/addrs select pin	51	EFMOA	I	EFM offset adjustment pin
12	MWRB	I	MICOM write clock signal input pin	52	TZCO	O	Tracking zero cross output pin
13	MRDB	I	MICOM read clock signal input pin	53	SVDD	P	Servo CPU VDD power supply pin
14	MDATA0	I/O	MICOM data pin0	54	EQCTL	O	EQ control signal
15	MDATA1	I/O	MICOM data pin1	55	EFMI	I	EFM signal for test
16	MDATA2	I/O	MICOM data pin2	56	EFMO	O	EFM signal
17	MDATA3	I/O	MICOM data pin3	57	LPFDVD	I	Asymmetric input signal for DVD
18	MDATA4	I/O	MICOM data pin4	58	LPFCD	I	Asymmetric input signal for CD
19	MDATA5	I/O	MICOM data pin5	59	RFI	I	RF input signal
20	MDATA6	I/O	MICOM data pin6	60	SVSS	P	Servo CPU VSS power supply pin
21	MDATA7	I/O	MICOM data pin7	61	AV/SS	P	Analog block /SS power supply pin
22	SENSE	O	Internal status monitor pin	62	SME	I	Spindle error input pin
23	DVDD	P	Servo logic & ROM VDD power supply pin	63	VREF	I	Reference voltage input pin
24	XI	I	System clock signal input pin	64	TE	I	Tracking error signal input pin
25	XO	O	System clock signal output pin	65	FE	I	Focus error signal input pin
26	XOUT	O	Clock out (32.988MHz) to DSP	66	ENV	I	RF envelope input pin
27	DVSS	P	Servo logic & ROM VSS power supply pin	67	TILT	I	TILT in (reserved)
28	SQCK	O	Clock output pin for subcode data read	68	AV/DD	P	Analog block /DD power supply pin
29	SQSI	I	Subcode data input pin	69	TILT	O	TILT out (reserved)
30	SCOR	I	Timing detection input pin for subcode data read	70	DV/CTL	O	Depth variation control signal output pin
31	SMON	I	Motor ON signal input pin	71	TBAL	O	Tracking balance signal output pin
32	LOCK	I	Lock signal input pin	72	FBAL	O	Focus balance signal output pin
33	DIRC	I	Direct jump control (for 1 track jump)	73	SID	O	Spindle motor drive signal output pin
34	FOKB	I	Focus OK signal input pin	74	SPD	O	Spindle motor drive signal output pin
35	FDCTL	I	PLL frequency detect control input pin	75	FOD	O	Focus actuator drive signal output pin
36	LDONB	O	Laser diode ON signal output pin	76	TRD	O	Tracking actuator drive signal output pin
37	DFCT	I	Defect detection signal input pin	77	TZCA	I	TE signal for tracking zero cross input pin
38	MIRR	I	Minor signal input pin	78	MDOUT0	O	Mode data0 out controlled by micom
39	PLLHD	I	PLL hold signal from micom	79	MDOUT1	O	Mode data1 out controlled by micom
40	INT0_224	O	Servo interrupt/monitor pin	80	MDOUT2	O	Mode data2 out controlled by micom

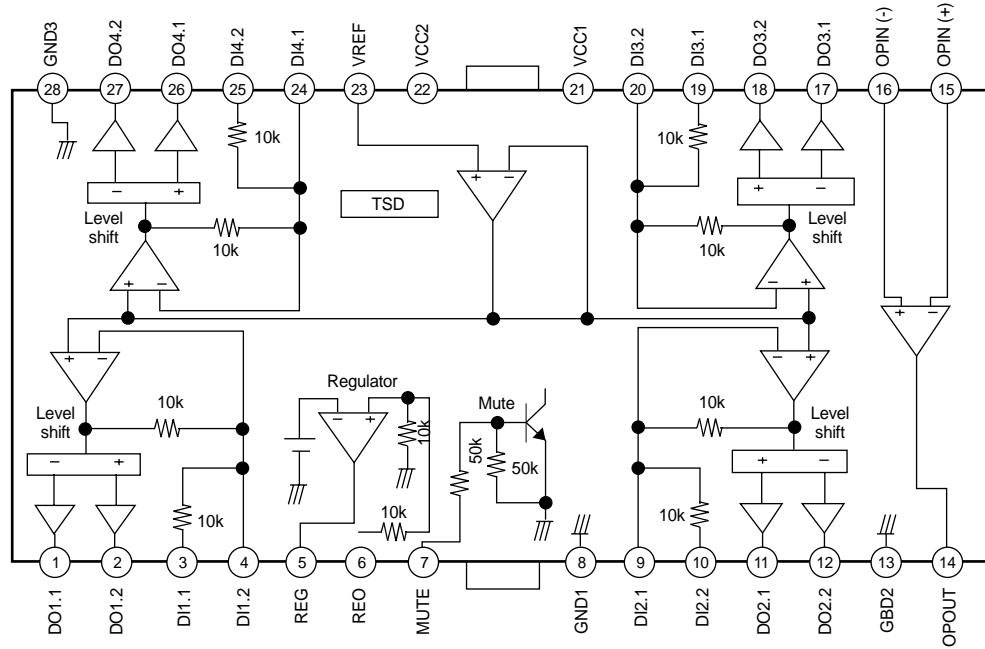
No	Name	I/O	Description
1	MDOU3	O	Mode data3 out controlled by micom
2	SSTOP/PS0PS1	I	Limit switch/sled position sensor input pin0
3	PS1	I	Sled motor position sensor input pin1
4	TEST	I	Test pin (L: normal/H: test)
5	COUT	O	Counter clock
6	FLKB	O	Focus servo lock signal output pin
7	TLKB	O	Tracking servo lock signal output pin
8	PSB	I	0: 1 Bit, 1: 8 Bit
9	RSTB	I	System reset signal input pin
10	CSB	I	MICOM chip select pin
11	DAB	I	MICOM data/addrs select pin
12	MWRB	I	MICOM write clock signal input pin
13	MRDB	I	MICOM read clock signal input pin
14	MDATA0	I/O	MICOM data pin0
15	MDATA1	I/O	MICOM data pin1
16	MDATA2	I/O	MICOM data pin2
17	MDATA3	I/O	MICOM data pin3
18	MDATA4	I/O	MICOM data pin4
19	MDATA5	I/O	MICOM data pin5
20	MDATA6	I/O	MICOM data pin6
21	MDATA7	I/O	MICOM data pin7
22	SENSE	O	Internal status monitor pin
23	DVDD	P	Servo logic & ROM VDD power supply pin
24	XI	I	System clock signal input pin
25	XO	O	System clock signal output pin
26	XOUT	O	Clock out (32.988MHz) to DSP
27	DVSS	P	Servo logic & ROM VSS power supply pin
28	SQCK	O	Clock output pin for subcode data read
29	SQSI	I	Subcode data input pin
30	SCOR	I	Timing detection input pin for subcode data read
31	SMON	I	Motor ON signal input pin
32	LOCK	I	Lock signal input pin
33	DIRC	I	Direct jump control (for 1 track jump)
34	FOKB	I	Focus OK signal input pin
35	FDCTL	I	PLL frequency detect control input pin
36	LDONB	O	Laser diode ON signal output pin
37	DFCT	I	Defect detection signal input pin
38	MIRR	I	Minor signal input pin
39	PLLHD	I	PLL hold signal from micom
40	INT0_224	O	Servo interrupt/monitor pin

2-1-10 DRIC1 (KA3011D ; Motor & Actuator Driver)



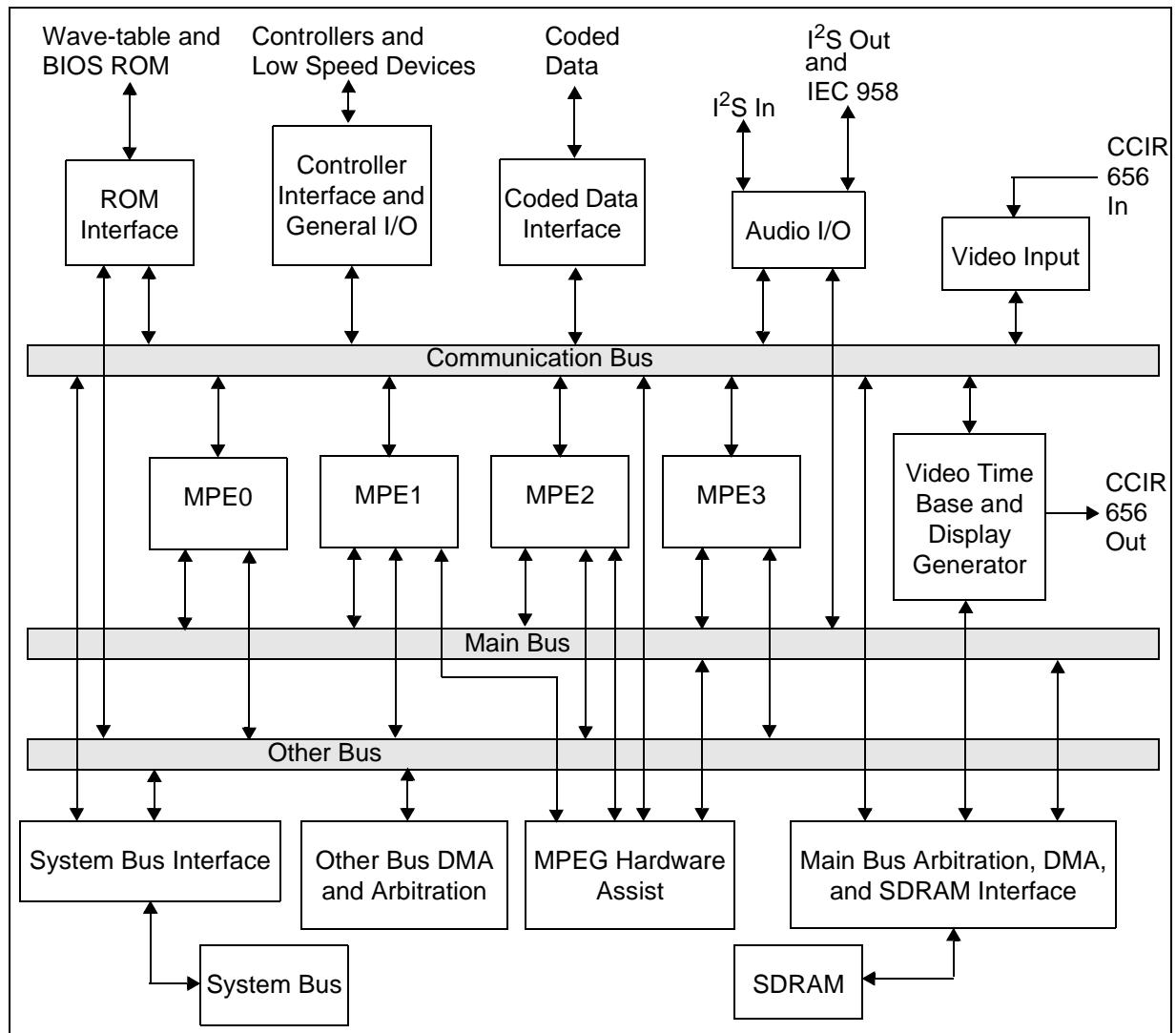
PIN no.	Symbol	I/O	Description	PIN no.	Symbol	I/O	Description
1	NC	-	No connection	15	VH	I	Hall bias
2	A3	O	Output (A3)	16	NC	-	No connection
3	NC	-	No connection	17	CNF	-	Phase compensation capacitor
4	A2	O	Output (A2)	18	SB	I	Short brake
5	NC	-	No connection	19	NC	-	No connection
6	NC	-	No connection	20	FR	O	Rotational direction detection
7	A1	O	Output (A1)	21	ECR	I	Output current control reference
8	GND	-	Ground	22	EC	I	Output current control voltage
9	H1+	I	Hall signal (H1+)	23	PS	I	Power save (Start/Stop switch)
10	H1-	I	Hall signal (H1-)	24	FG	O	FG waveform
11	H2+	I	Hall signal (H2+)	25	VCC	-	Supply voltage (Signal)
12	H2-	I	Hall signal (H2-)	26	VM2	-	Supply voltage (Motor)
13	H3+	I	Hall signal (H3+)	27	VM1	-	Supply voltage (Motor)
14	H3-	I	Hall signal (H3-)	28	RNF	-	Output current detection

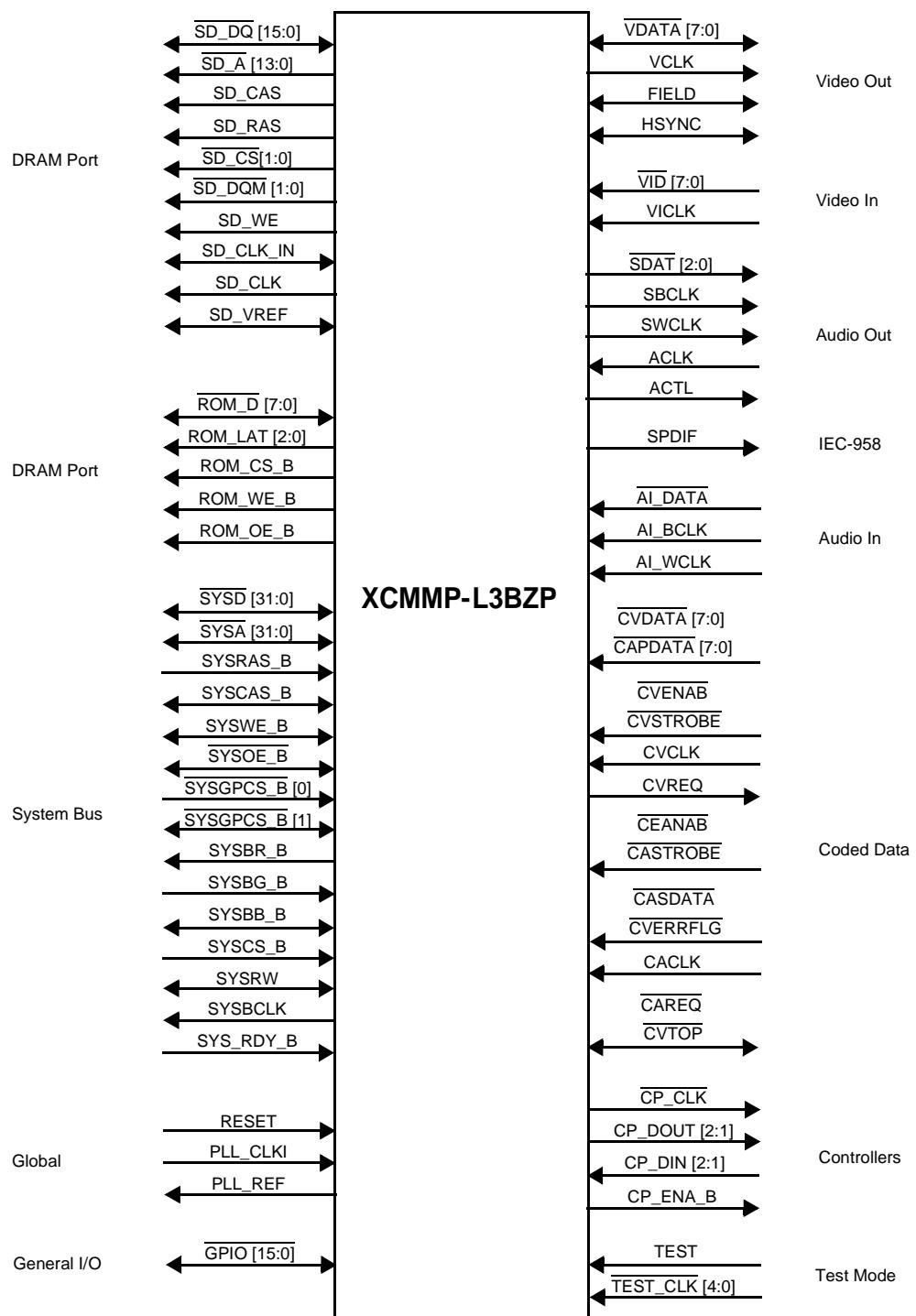
2-1-11 DRIC2 (FAN8000D ; Motor & Actuator Driver)



PIN no.	Symbol	I/O	Description	PIN no.	Symbol	I/O	Description
1	DO1.1	O	Drive output	15	OPIN(-)	I	Op-amp input(-)
2	DO1.2	O	Drive output	16	OPIN(+)	I	Op-amp input(+)
3	DI1.1	I	Drive input	17	DO3.1	O	Drive output
4	DI1.2	I	Drive input	18	DO3.2	O	Drive output
5	REG	-	Regulator	19	DI3.1	I	Drive input
6	REO	O	Regulator output	20	DI3.2	I	Drive input
7	MUTE	I	Mute	21	V _{CC1}	-	Supply voltage
8	GND1	-	Ground 1	22	V _{CC2}	-	Supply voltage
9	DI2.1	I	Drive input	23	VREF	I	2.5V bias voltage
10	DI2.2	I	Drive input	24	DI4.1	I	Drive input
11	DO2.1	O	Drive output	25	DI4.2	I	Drive input
12	DO2.2	O	Drive output	26	DO4.1	O	Drive output
13	GND2	-	Ground 2	27	DO4.2	O	Drive output
14	OPOUT	O	Op-amp output	28	GND3	-	Ground 3

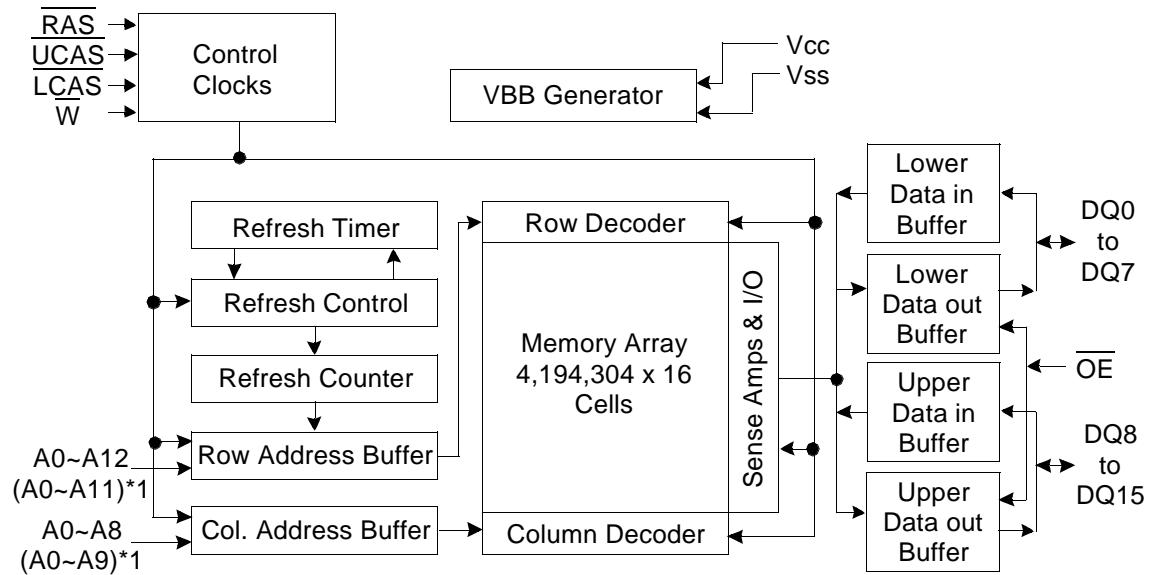
2-1-12 NIC1 (XCMMMP-L3BZP ; A/V Decoder)





Signal Group	Signal Names	Description	I/O Type	Input	Output (mA)	Signal Group	Signal Names	Description	I/O Type	Input	Output (mA)
DRAM port	<u>SD_DQ[15:0]</u>	DRAM data bus	Bi-direct	SSTL	16	Video out	<u>VDAT&AT[7:0]</u>	Video data / Mode select	Bi-direct	CMOS	4
	<u>SD_A[13:0]</u>	DRAM MUX address	Output	-	16	VCLK	CCIR 656 clock	Output	-	CMOS	4
SD_CAS	Column strobe	Output	-	16	FIELD	Odd/Even field	Bi-direct	CMOS	4	CMOS	4
SD_RAS	Row Strobe	Output	-	16	H SYNC	Horizontal Sync	Bi-direct	CMOS	4	CMOS	4
	<u>SD_CS[1:0]</u>	Chip select	Output	-	16	<u>VID[7:0]</u>	Video In Data	Input	TTL	-	-
	<u>SD_DQM[1:0]</u>	Byte selects	Output	-	16	VICLK	Video In clock	Input	SCH.	-	-
SD_WE	Read/Write enable	Output	-	16	<u>SDAT[12:0]</u>	Serial Data	Output	-	CMOS	4	-
SD_CLK_IN	SDRAM clock input:	Input	SSTL	-	SBCLK	Bit clock	Output	-	4	4	-
SD_CLK	SDRAM clock output	Output	-	16	SWCLK	Left/right clock	Output	-	4	4	-
SD_VREF	SSTL Input reference voltage	Input	VREF	-	ACLK	Audio master clock	Input	CMOS	-	-	-
ROM port	<u>ROM_D[7:0]</u>	Multiplexed address/data	Bi-direct	CMOS	4	ACTL	Audio VCXO rate control	Output	-	4	-
	<u>ROM_LAT[2:0]</u>	ROM address latch enables	Output	-	4	SPDIF	Coded Audio data	Output	-	4	-
ROM_CS_B	ROM chip select	Output	-	4	AI_DATA	Serial Data	Input	CMOS	-	-	-
ROM_WE_B	Write enable (for SRAM/FLASH)	Output	-	4	AI_BCLK	Serial Clock	Input	CMOS	-	-	-
ROM_OE_B	Output Enable	Output	-	4	<u>AL_WCLK</u>	Serial Word clock	Input	CMOS	-	-	-
System bus	<u>SYSD[31:0]</u>	System bus data	Bi-direct	CMOS	4	<u>CVDAT&AT[7..0] / CAPDATA[7..0]</u>	Program Elem. Stream Video/Audio, Program Stream or Transport Stream data	Input	TTL	-	-
	<u>SYSA[24:2]</u>	System bus address	Bi-direct	CMOS	4	<u>CVEN&AB / CVSTROBE</u>	Coded Video/Transport Stream/Program Stream data enable or data strobe	Input	TTL	-	-
SYSRAS_B	DRAM RAS for bank 0	Tri-state	-	8	CVCLK	Coded Video/Transport Stream data clock	Input	TTL	-	-	-
SYSCAS_B	DRAM CAS for both banks	Bi-direct	CMOS	8	CVREQ	Coded Video/Program Stream Request	Output	-	4	4	-
SYWE_B	Write enable for all banks.	Bi-direct	CMOS	8	<u>CEAN&AB / CASTROBE</u>	Coded Audio data enable or data strobe	Input	TTL	-	-	-
SYSOE_B	Output enable for all banks.	Bi-direct	CMOS	8	<u>CASDATA / CVERR&FG</u>	Coded Serial Audio data or Coded Transport Stream/Program Stream top of packet/parity flag	Input	TTL	-	-	-
<u>SYSGPCS_B[0]</u>	Chip select 0, RAS for bank 1	Tri-state	-	8	CACLK	Coded Audio data clock	Input	TTL	4	4	-
<u>SYSGPCS_B[1]</u>	Chip select 1	Bi-direct	CMOS	4	<u>CAREQ / CVTOP</u>	Coded Audio request or Transport Stream/Program Stream top of packet/parity signal	Output/ Input	TTL	-	-	-
SYSBR_B	Bus Request	Output	-	4	Controllers	Controller clock output	Output	-	4	4	-
SYSBG_B	Bus Grant	Input	CMOS	-	<u>CP_DOUT[2:1]</u>	Controller data outputs	Output	-	4	4	-
SYSBB_B	Bus Busy	Bi-direct	CMOS	4	<u>CP_DIN[2:1]</u>	Controller data inputs	Input	CMOS	-	-	-
SYSCS_B	Chip select for external access	Input	CMOS	-	CP_ENA_B	Controller data tri-state enable	Output	-	4	4	-
SY_S_RDY_B	Data ready signal	Input	CMOS	-	TEST	Diagnostic test mode enable, should be tied low.	Input	CMOS	-	-	-
Global	RESET	System reset	Input	SCH.	<u>TEST_CLK[4:0]</u>	Diagnostic test mode clocks, should be tied low.	Input	CMOS	-	-	-
	PLL_CLKI	System clock input - 108MHz	Input	CMOS	-	-	-	-	-	-	-
	PLL_REF	PLL Reference clock output	Output	CMOS	4	-	-	-	-	-	-
General IO	<u>GPIO[15:0]</u>	General purpose IO signals	Bi-direct	CMOS	4	-	-	-	-	-	-

2-1-13 NIC2/NIC3 (K4E641612C ; 4M x 16bit CMOS DRAM)

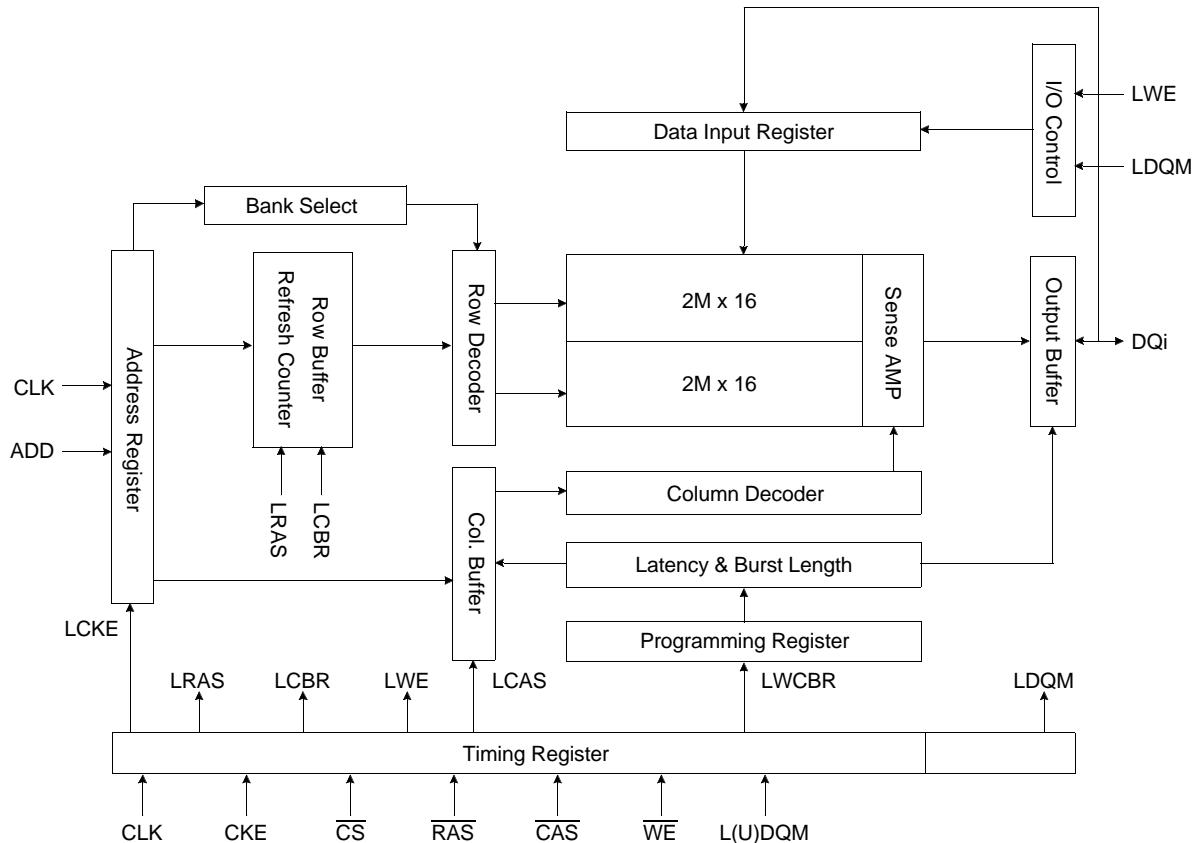


Note) *1 : 4K Refresh

Vcc	1	50	Vss
DQ0	2	49	DQ15
DQ1	3	48	DQ14
DQ2	4	47	DQ13
DQ3	5	46	DQ12
Vcc	6	45	Vss
DQ4	7	44	DQ11
DQ5	8	43	DQ10
DQ6	9	42	DQ9
DQ7	10	41	DQ8
N.C	11	40	N.C
Vcc	12	39	Vss
W	13	38	LCAS
RAS	14	37	UCAS
N.C	15	36	OE
N.C	16	35	N.C
N.C	17	34	N.C
N.C	18	33	A12(N.C)*
A0	19	32	A11
A1	20	31	A10
A2	21	30	A9
A3	22	29	A8
A4	23	28	A7
A5	24	27	A6
Vcc	25	26	Vss

Pin Name	Pin function
A0 - A12	Address Inputs(8K Product)
A0 - A11	Address Inputs(4K Product)
DQ0 - 15	Data In/Out
Vss	Ground
RAS	Row Address Strobe
UCAS	Upper Column Address Strobe
LCAS	Lower Column Address Strobe
W	Read/Write Input
OE	Data Output Enable
Vcc	Power(+3.3V)
N.C	No Connection

2-1-14 NIC12 (K4S641622C ; 2M x 16Bit x 2Banks CMOS SDRAM)

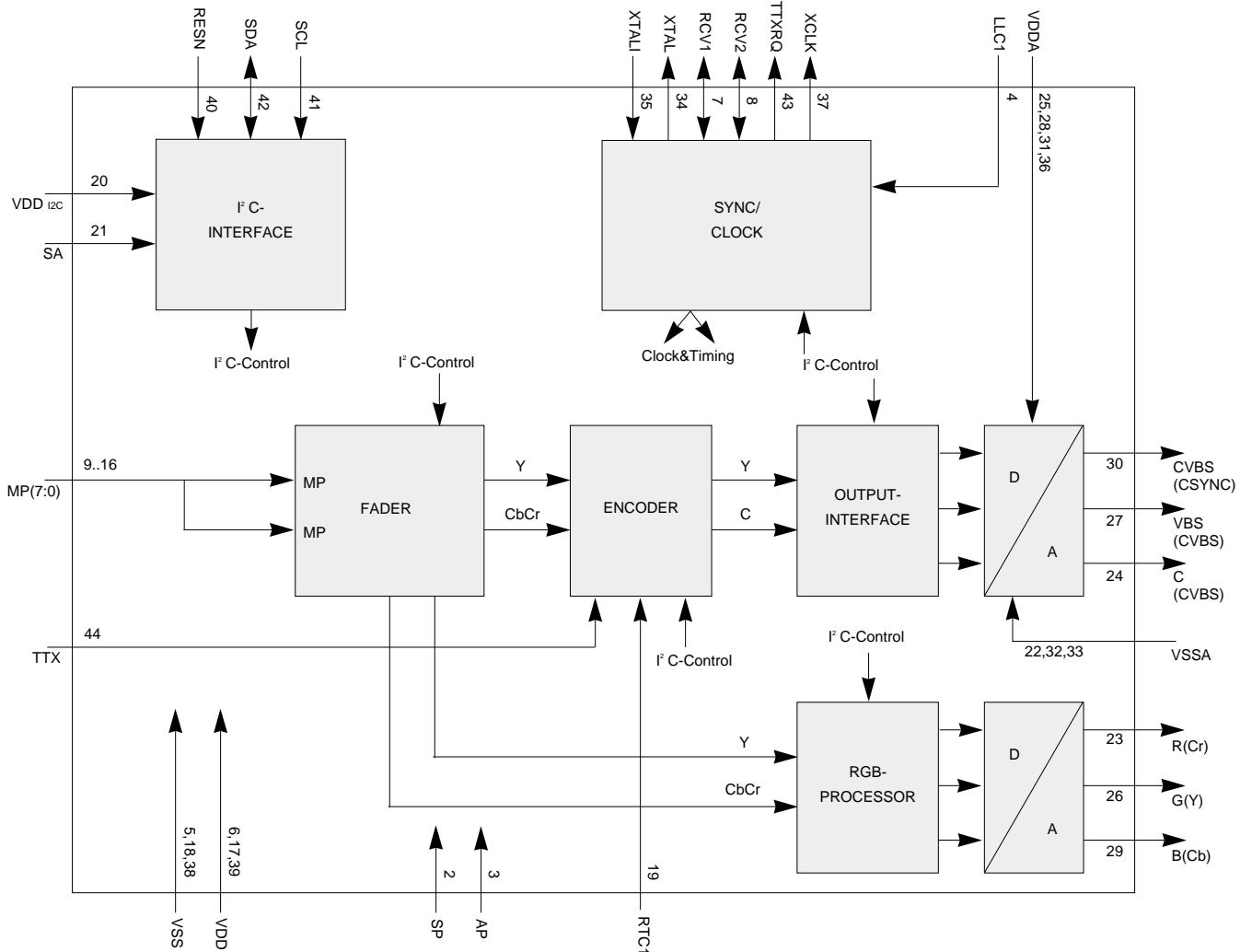


VDD	1
DQ0	2
VDDQ	3
DQ1	4
DQ2	5
VSSQ	6
DQ3	7
DQ4	8
VDDQ	9
DQ5	10
DQ6	11
VSSQ	12
DQ7	13
VDD	14
LDQM	15
WE	16
CAS	17
RAS	18
CS	19
BA	20
A12	21
A10/AP	22
A0	23
A1	24
A2	25
A3	26
VDD	27
	54
	53
	52
	51
	50
	49
	48
	47
	46
	45
	44
	43
	42
	41
	40
	39
	38
	37
	36
	35
	34
	33
	32
	31
	30
	29
	28
	Vss
	DQ15
	VSSQ
	DQ14
	DQ13
	VDDQ
	DQ12
	DQ11
	VSSQ
	DQ10
	DQ9
	VDDQ
	DQ8
	VSS
	N.C/RFU
	UDQM
	CLK
	CKE
	N.C
	A11
	A9
	A8
	A7
	A6
	A5
	A4
	Vss

Pin	Name	Input Function
CLK	System clock	Active on the positive going edge to sample all inputs.
\overline{CS}	Chip select	Disables or enables device operation by masking or enabling all inputs except CLK, CKE and L(U)DQM
CKE	Clock enable	Masks system clock to freeze operation from the next clock cycle. CKE should be enabled at least one cycle prior to new command. Disable input buffers for power down in standby.
A ₀ ~ A ₁₂	Address	Row/column addresses are multiplexed on the same pins. Row address : RA ₀ ~ RA ₁₂ , Column address : CA ₀ ~ CA ₇
BA	Bank select address	Selects bank to be activated during row address latch time. Selects bank for read/write during column address latch time.
\overline{RAS}	Row address strobe	Latches row addresses on the positive going edge of the CLK with \overline{RAS} low. Enables row access & precharge.
\overline{CAS}	Column address strobe	Latches column addresses on the positive going edge of the CLK with \overline{CAS} low. Enables column access.
\overline{WE}	Write enable	Enables write operation and row precharge. Latches data in starting from \overline{CAS} , \overline{WE} active.
L(U)DQM	Data input/output mask	Makes data output Hi-Z, t _{SHZ} after the clock and masks the output. Blocks data input when L(U)DQM active.
DQ ₀ ~ 15	Data input/output	Data inputs/outputs are multiplexed on the same pins.
V _{DD} /V _{SS}	Power supply/ground	Power and ground for the input buffers and the core logic.
V _{DDQ} /V _{SSQ}	Data output power/ground	Isolated power supply and ground for the output buffers to provide improved noise immunity.
N.C/RFU	No connection /reserved for future use	This pin is recommended to be left No Connection on the device.

2-1-15 VIC50 (SAA7128 ; Digital Video Encoder)

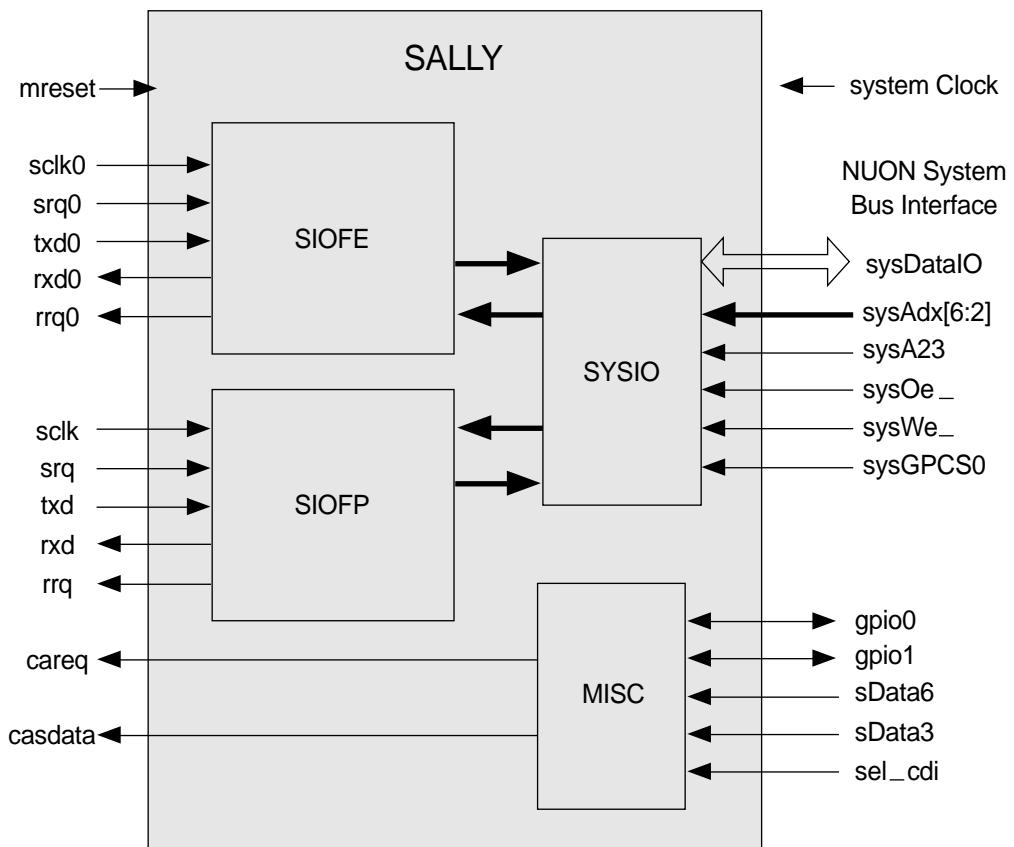
BLOCK DIAGRAM



PIN	I/O	NAME	FUNCTION
1		res.	Reserved pin, do not connect
2	I	SP	Test Pin;connected to digital ground for normal operation
3	I	AP	Test Pin;connected to digital ground for normal operation
4	I	LLC1	Line-Locked Clock input:this is the 27 MHz master clock
5	I	V _{ss1}	Digital supply ground 1
6	I	V _{dd1}	Digital supply 1
7	I/O	RCV1	Raster Contral 1 for video port. This pin receives/provides a VS/FS/FSEQ signal.
8	I/O	RCV2	Raster Contral 2 for video port. This pin provides an HS pulse of programmable length or receives an HS pulse.

PIN	I/O	NAME	FUNCTION
9	I	MP7	Double speed 54 MHzMPEG port. It is an input for "CCIR 656" style multiplexed Cb, Y, Cr data. Data are sampled on the rising and falling clock edge: data sampled on the rising edge then are sent to the encoding part of the device, data sampled on the falling edge are sent to the RGB part of the device. (or vice versa, depending on programming)
10	I	MP6	
11	I	MP5	
12	I	MP4	
13	I	MP3	
14	I	MP2	
15	I	MP1	
16	I	MP0	
17	I	V _{DD2}	Digital supply voltage 2
18	I	V _{SS2}	Digital ground 2
19	I	RTCI	Real Time Control input. If the LLC1 clock is provided by an SAA7111 or SAA7151B, RTCI should be connected to the RTCO pin of the respective decoder to improve the signal quality.
20	I	VDD _{12C}	Sense input for 12C bus voltage; connect to 12C bus supply
21	I	SA	Select 12C address: low selects slave address 88h, high selects slave address 8Ch.
22	I	V _{SSA1}	Analog ground 1 for Red(Cr), C(CVBS), Green(Y) outputs
23	O	R(Cr)	Analog output of Red(Cr) signal
24	O	C	Analog output of Chrominance(CVBS) signal
25	I	V _{DDA1}	Analog supply voltage 1 for R(Cr), C(CVBS) outputs
26	O	G(Y)	Analog output of Green(Y) signal
27	O	VBS	Analog output of VBS(CVBS) signal
28	I	V _{DDA2}	Analog supply voltage 2 for VBS(CVBS), Green(Y) outputs
29	O	B(Cb)	Analog output of Blue(Cb) signal
30	O	CVBS	Analog output of CVBS(CSYNC) signal
31	I	V _{DDA3}	Analog supply voltage 3 for Blue(Cb) and CVBS(CSYNC) outputs
32	I	V _{SSA2}	Analog ground 2 for VBS(CVBS), Blue(Cb), CVBS(CSYNC) outputs
33	I	V _{SSA3}	Analog ground 3 for the DAC reference ladder and the oscillator
34	O	XTAL	Crystal oscillator output
35	I	XTAL1	Crystal oscillator input; if the oscillator is not used, this pin should be connected to ground.
36	I	V _{DDA4}	Analog supply voltage 4 for the DAC reference ladder and the oscillator
37	O	XCLK	Clock output of the crystal oscillator
38	I	V _{SS3}	Digital supply ground 3
39	I	V _{DD3}	Digital supply 3
40	I	RESN	Reset input, active LOW. After reset is applied, all digital I/Os are in input mode; PAL-Blackburst on CVBS, VBS and C;RGB outputs set to lowest voltage. The 12C-bus receiver waits for the START condition.
41	I	SCL	12C serial clock input
42	I/O	SDA	12C serial data input/output
43	O	TTXRQ	Teletext Request output, indicating when text bits are requested
44	I	TTX	Teletext bit stream input

2-1-16 NIC7 (KS999F ; IC-GATE ARRAY)



PIN	Signal	Type	Spec
1	SysData02	IO	6 ma tristate IO buffer Cmos input
2	SysData01	IO	6 ma tristate IO buffer Cmos input
3	SysData00	IO	6 ma tristate IO buffer Cmos input
4	D	S	Supply
5	gpio0	IO	6 ma tristate IO buffer Cmos input 5V tolerant
6	gpio1	IO	6 ma tristate IO buffer Cmos input 5V tolerant
7	tos	I	Cmos Input 5 Volt Tolerant
8	sData3	I	Cmos Input 5 Volt Tolerant
9	careq	O	4 ma output
10	S	S	Supply
11	sData6	I	Cmos Input 5 Volt Tolerant
12	dter	I	Cmos Input 5 Volt Tolerant
13	casdata	O	4 ma output
14	D	S	Supply
15	sel_cdi	I	Cmos Input 5 Volt Tolerant
16	rrq0	O	4 ma output
17	srq0	I	Cmos Input 5 Volt Tolerant

PIN	Signal	Type	Spec
18	txd0	I	Cmos Input 5 Volt Tolerant
19	rxd0	O	4 ma output
20	sclk0	I	Cmos Input 5 Volt Tolerant
21	S	S	Supply
22	sclk	I	Cmos Input 5 Volt Tolerant
23	rxd	O	4 ma output
24	txd	I	Cmos Input 5 Volt Tolerant
25	D	S	Supply
26	srq	I	Cmos Input 5 Volt Tolerant
27	mreset	I	Cmos Input 5 Volt Tolerant
28	rrq	O	4 ma output
29	sys0e	I	Cmos Input
30	sysClkIn	I	Cmos Input x3 drive
31	S	S	Supply
32	sysGPCS0	I	Cmos Input
33	sysA23	I	Cmos Input
34	sysA6	I	Cmos Input
35	sysA5	I	Cmos Input
36	sysA4	I	Cmos Input
37	sysA3	I	Cmos Input
38	sysA2	I	Cmos Input
39	sysWe	I	Cmos Input
40	sysDataI07	IO	6 ma tristate IO buffer Cmos input
41	sysDataI06	IO	6 ma tristate IO buffer Cmos input
42	sysDataI05	IO	6 ma tristate IO buffer Cmos input
43	sysDataI04	IO	6 ma tristate IO buffer Cmos input
44	sysDataI03	IO	6 ma tristate IO buffer Cmos input

MEMO

3. Specifications

GENERAL	Power Requirements	AC 120V, 60Hz
	Power Consumption	21W
	Weight	7.5 lbs
	Dimensions	W 16.9 in x D 11.0 in x H 3.5 in
	Operating Temperature Range	+41°F ~ +95°F
	Operating Humidity Range	10% to 75%
DISC	DVD (DIGITAL VERSATILE DISC)	Reading Speed : 11.45 ft/sec Approx. Play Time (Single Sided, Single Layer Disc) : 135 min.
	CD : 5" (COMPACT DISC)	Reading Speed : 3.9 to 4.6 ft/sec Maximum Play Time : 74min.
	CD : 3 1/2" (Compact Disc)	Reading Speed : 3.9 to 4.6 ft/sec Maximum Play Time : 20min.
	VCD : 12Cm	Reading Speed : 3.9 to 4.6 ft/sec Maximum Play Time : 74min. (Video + Audio)
	Composite Video	2 channel : 1.0 Vp-p (75ohm load)
	Component Video	Y : 1.0 Vp-p (75ohm load) Pr : 0.70 Vp-p (75ohm load) Pb : 0.70Vp-p (75ohm load)
Video Output	S-Video	Luminance Signal : 1.0 Vp-p (75ohm load) Color Signal : 0.286Vp-p (75ohm load)
	2 Channel	L (1/L), R (2/R)
	5.1 Channel	F/L, F/R, R/L, R/R, C/T, S/W
	Output Level	Analog: 2 Vrms(1 KHz) Digital: 1.15 Vp-p
	* Frequency Response	48KHz Sampling : 4Hz to 22 KHz 96KHz Sampling : 4Hz to 44KHz
	* S/N Ratio	110dB
Audio Output	* Dynamic Range	92dB
	* Total Harmonic Distortion	0.003% (In case of 1 KHz)

* : Nominal specification

MEMO

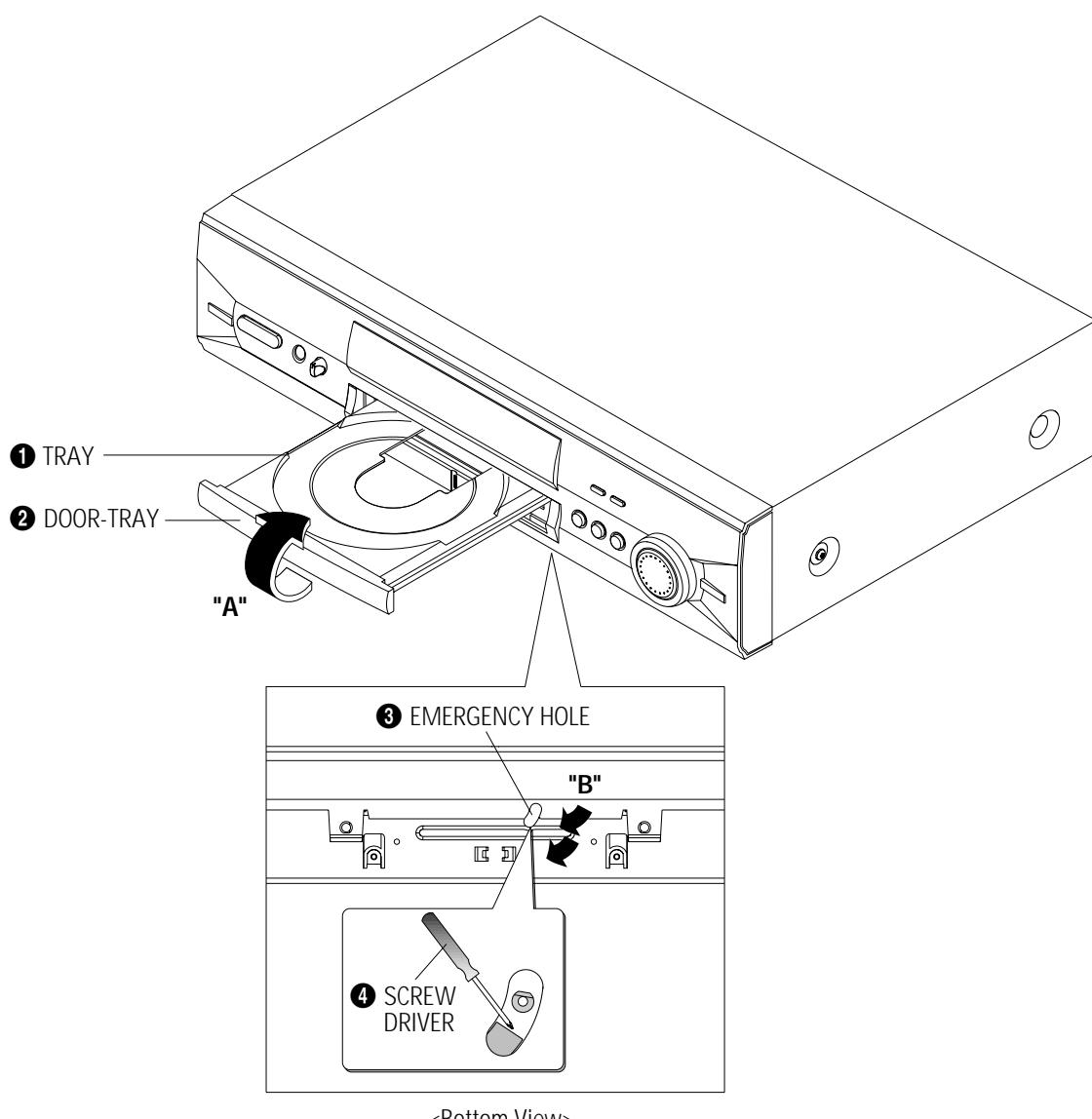
4. Disassembly and Reassembly

4-1 Cabinet and PCB

4-1-1 Door-Tray Removal

- 1) Supply power and open Tray **①**.
- 2) Disassemble the Door-Tray **②** in direction of arrow "A".
- 3) Close Tray **①** and power off.

Note : If Tray **①** doesn't open, insert a Screw driver **④** into the Emergency hole **③**(as shown in detailed drawing) and then turn it in the direction of arrow "B". Open Tray manually.



<Bottom View>

Fig. 4-1 Door-Tray Removal

4-1-2 Top Cabinet Removal

- 1) Remove 3 Screws **1** on the back Top Cabinet.
- 2) Remove 2 Screws **2**, **3** on the left and right side.
- 3) Lift up the Top Cabinet in direction of arrow.

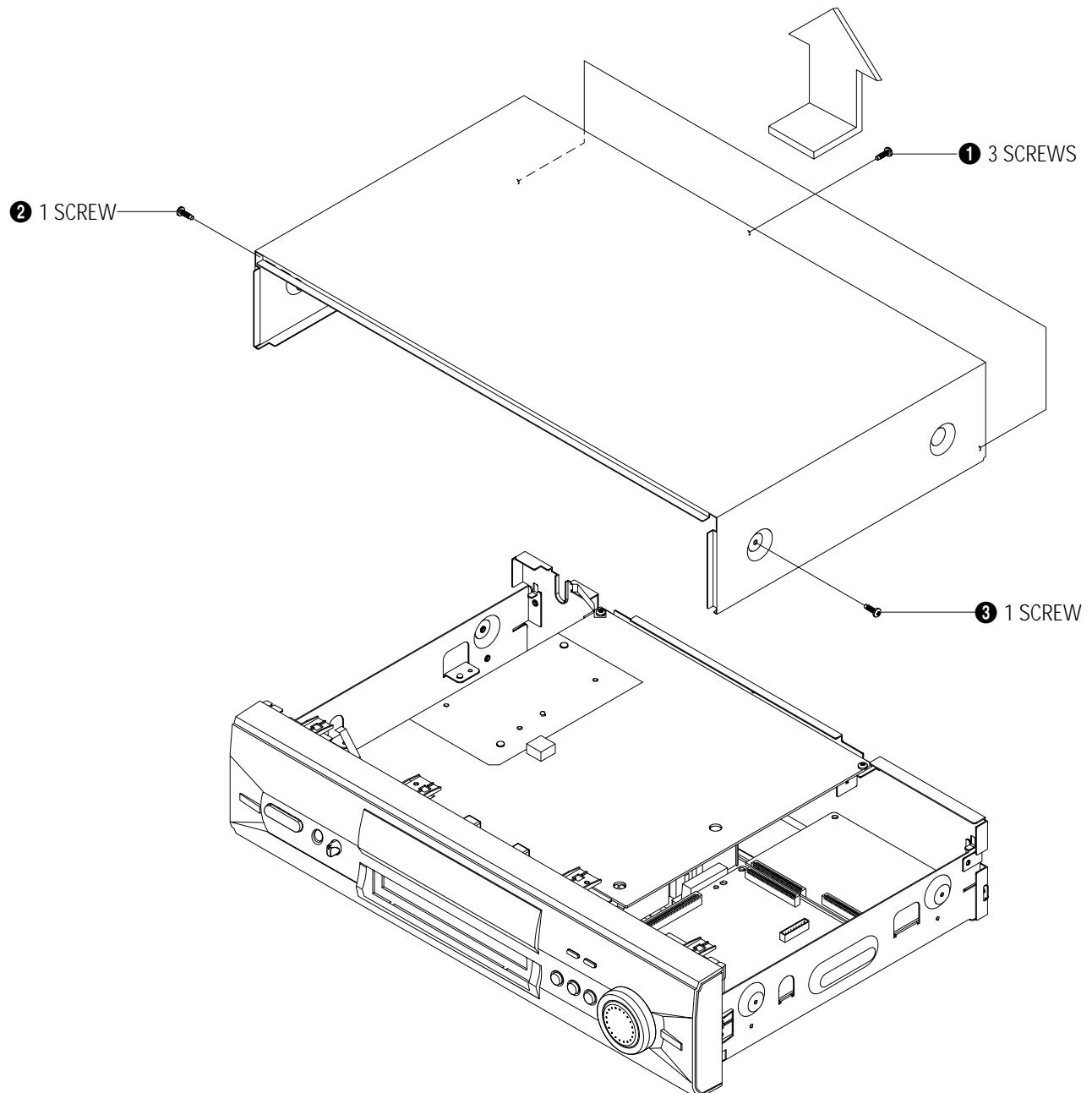


Fig. 4-2 Top Cabinet Removal

4-1-3 Ass'y Front Cabinet, Key Power PCB, Key Play PCB Removal

- 1) Remove 2 Screws ① and Ass'y Front Cabinet ②.
- 2) Remove Knob-Volume ③ and 2 Screws ④.
- 3) Remove Bracket-Phone ⑤ and Key Power PCB ⑥.
- 4) Remove Knob-Jog ⑦ and Knob-Shuttle ⑧.
- 5) Remove 4 Screws ⑨ and Key Play PCB ⑩.

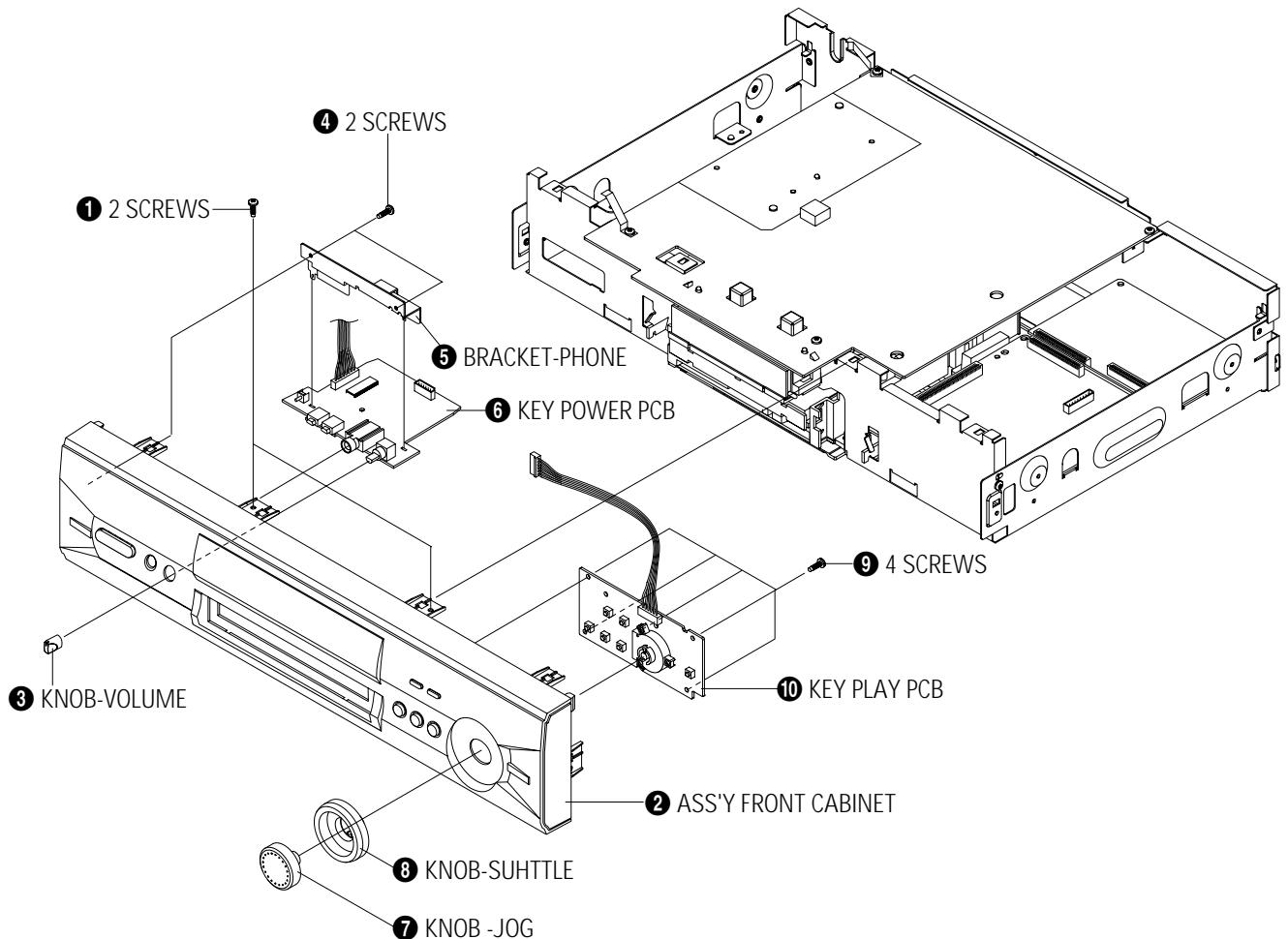


Fig. 4-3 Ass'y Front Cabinet, Key Power PCB, Key Play PCB Removal

4-1-4 Main Front/Back PCB, Jack PCB Removal

- 1) Remove 4 Screws ❶ and 2 Screws ❷.
- 2) Lift up the Jack PCB ❸.
- 3) Remove 4 Screws ❹ and lift up the Main Front PCB ❺, Main Back PCB ❻.

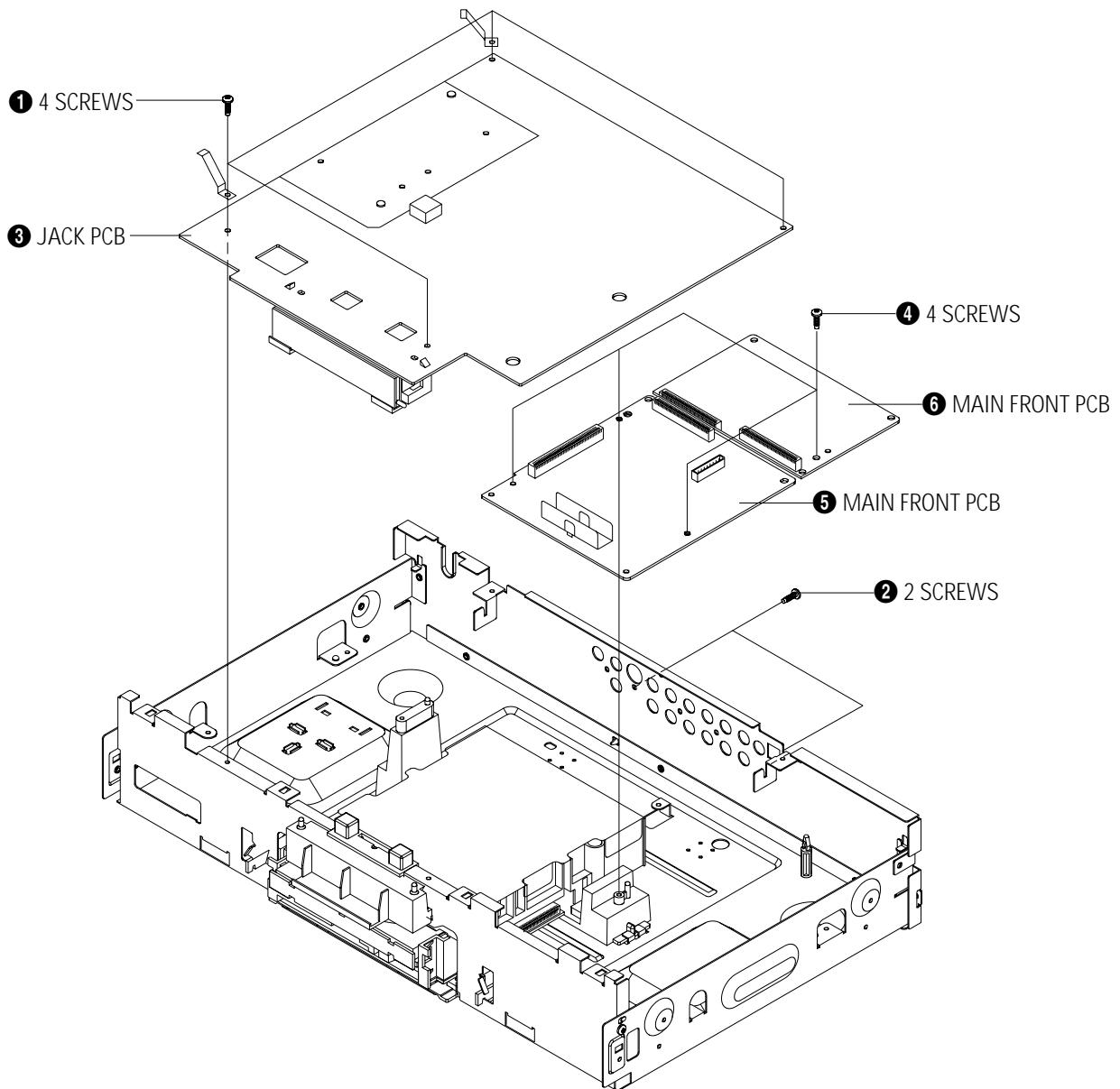


Fig. 4-4 Main Front/Back PCB, Jack PCB Removal

4-1-5 Ass'y Deck Removal

- 1) Remove 4 Screws ① from the Ass'y Deck and lift it up.

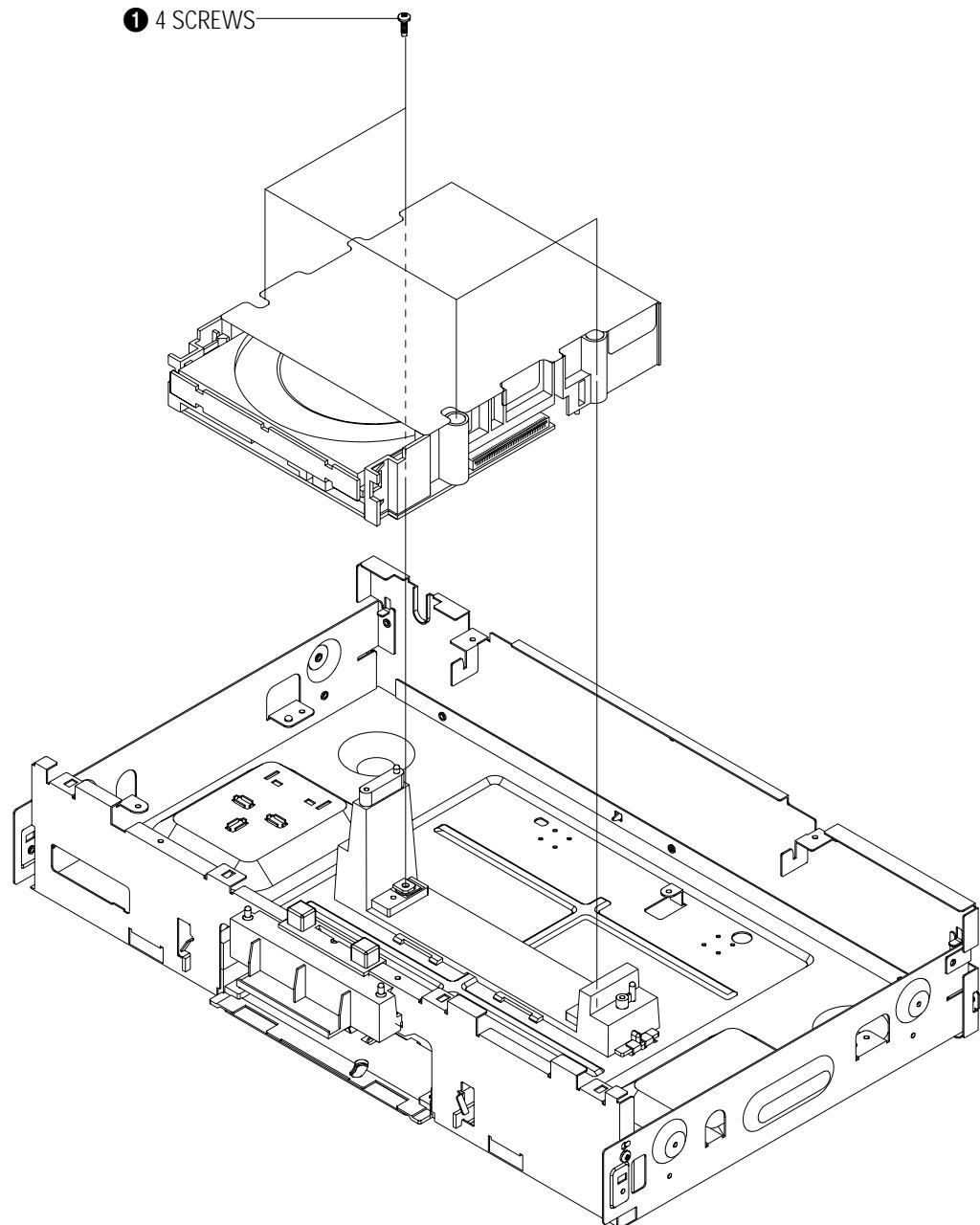


Fig. 4-5 Ass'y Deck Removal

4-2 PCB Location

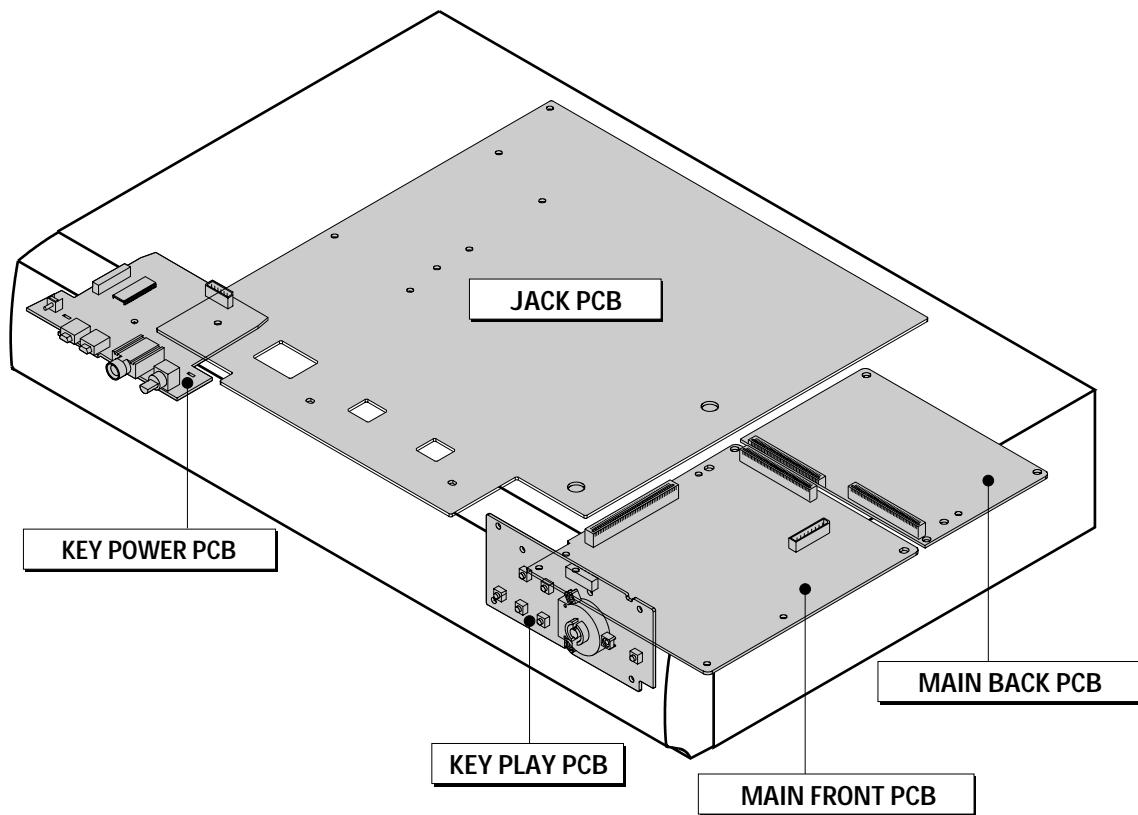
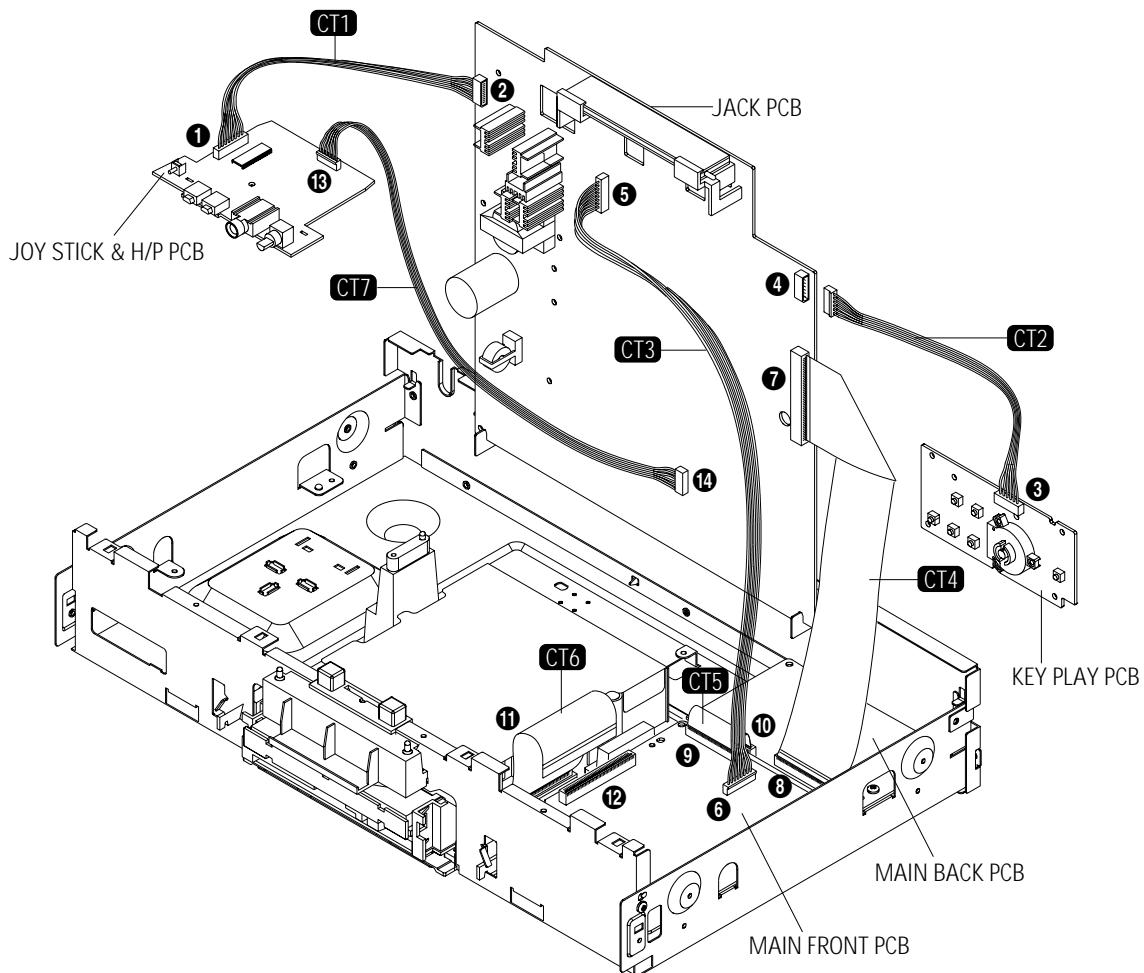


Fig. 4-6 PCB Location

4-3 Connector Diagram



NO.	CONNECTOR NO.	DIRECTION	CONNECTOR NO.
①	CN101	KEY POWER PCB ← CT1 → JACK PCB	CN18
②	CN18	JACK PCB ← CT1 → KEY POWER PCB	CN101
③	CON21	KEY PLAY PCB ← CT2 → JACK PCB	CN15/CN16
④	CN15/CN16	JACK PCB ← CT2 → KEY PLAY PCB	CON21
⑤	CN12	JACK PCB ← CT3 → MAIN FRONT PCB	CN7
⑥	CN7	MAIN FRONT PCB ← CT3 → JACK PCB	CN12
⑦	CN11	JACK PCB ← CT4 → MAIN BACK PCB	NCN2
⑧	NCN2	MAIN BACK PCB ← CT4 → JACK PCB	CN11
⑨	CN8	MAIN FRONT PCB ← CT5 → MAIN BACK PCB	NCN1
⑩	NCN1	MAIN BACK PCB ← CT5 → MAIN FRONT PCB	CN8
⑪	CN5	DECK PCB ← CT6 → MAIN FRONT PCB	CN6
⑫	CN6	MAIN FRONT PCB ← CT6 → DECK PCB	CN5
⑬	CN102	KEY POWER PCB ← CT7 → JACK PCB	CN17
⑭	CN17	JACK PCB ← CT7 → KEY POWER PCB	CN102

Fig. 4-7 Connector Diagram

4-4 Deck

4-4-1 Tray Removal

- 1) Remove 2 Screws ① and lift up the Cover Sheet ②, Ass'y-Deck Clamper ③.
- 2) Insert a Screw driver ⑤ into Emergency hole ④ and push it in the direction of arrow "A".
When the Tray ⑥ comes out a little, pull it in the direction of arrow "B" by hand.
- 3) Pull the Tray ⑥ to disassemble, while simultaneously pushing the Hook ⑦, ⑧ in direction of arrow "A", "B".

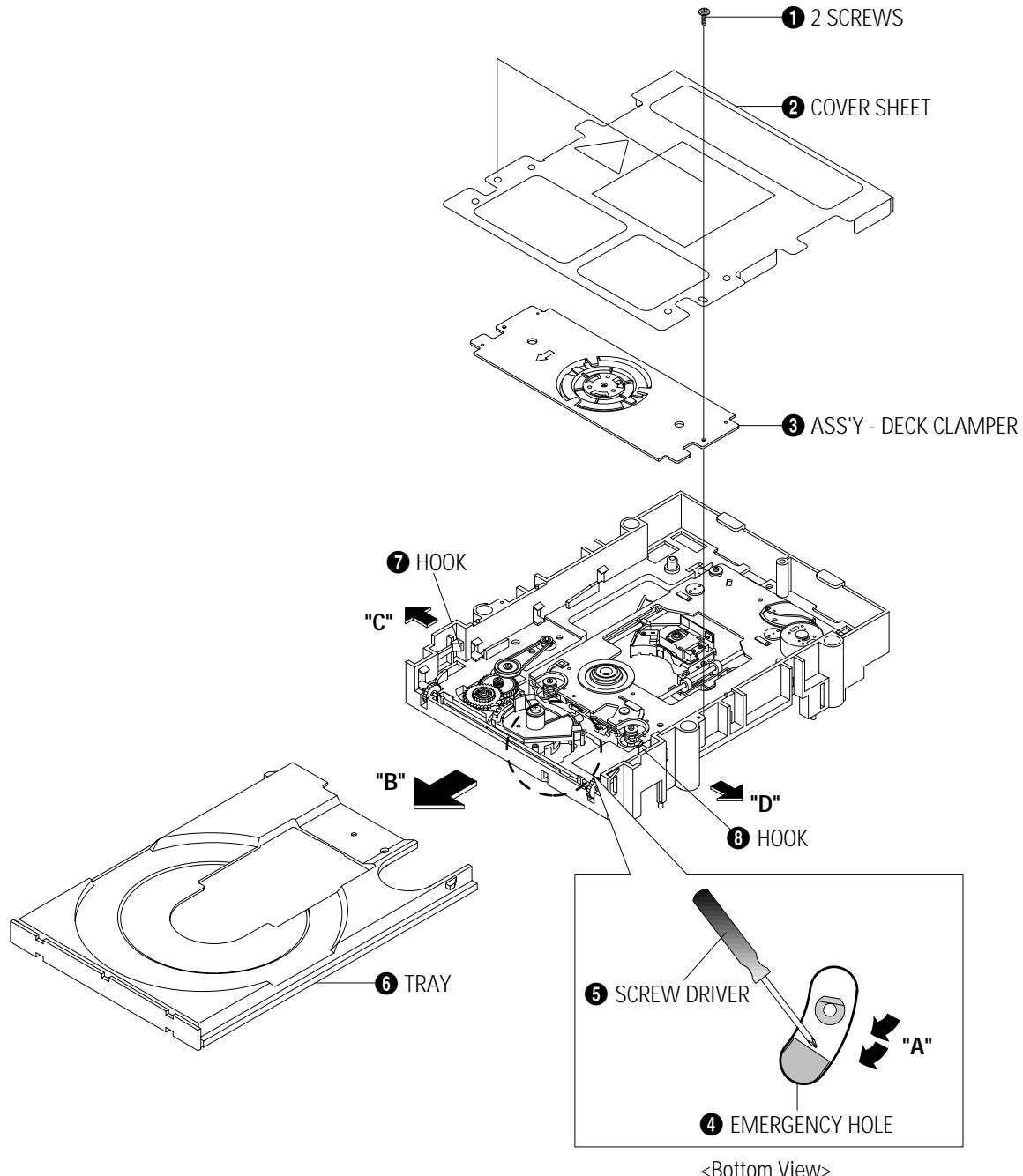


Fig. 4-8 Tray Removal

4-4-2 Ass'y-Deck Sub Removal

- 1) Remove 2 Screws ① and disassemble the Ass'y-PCB deck ②.
- 2) Disassemble the Ass'y-Deck Sub ④ in direction of arrow "B", while simultaneously pushing the Hook ③ in direction of arrow "A".

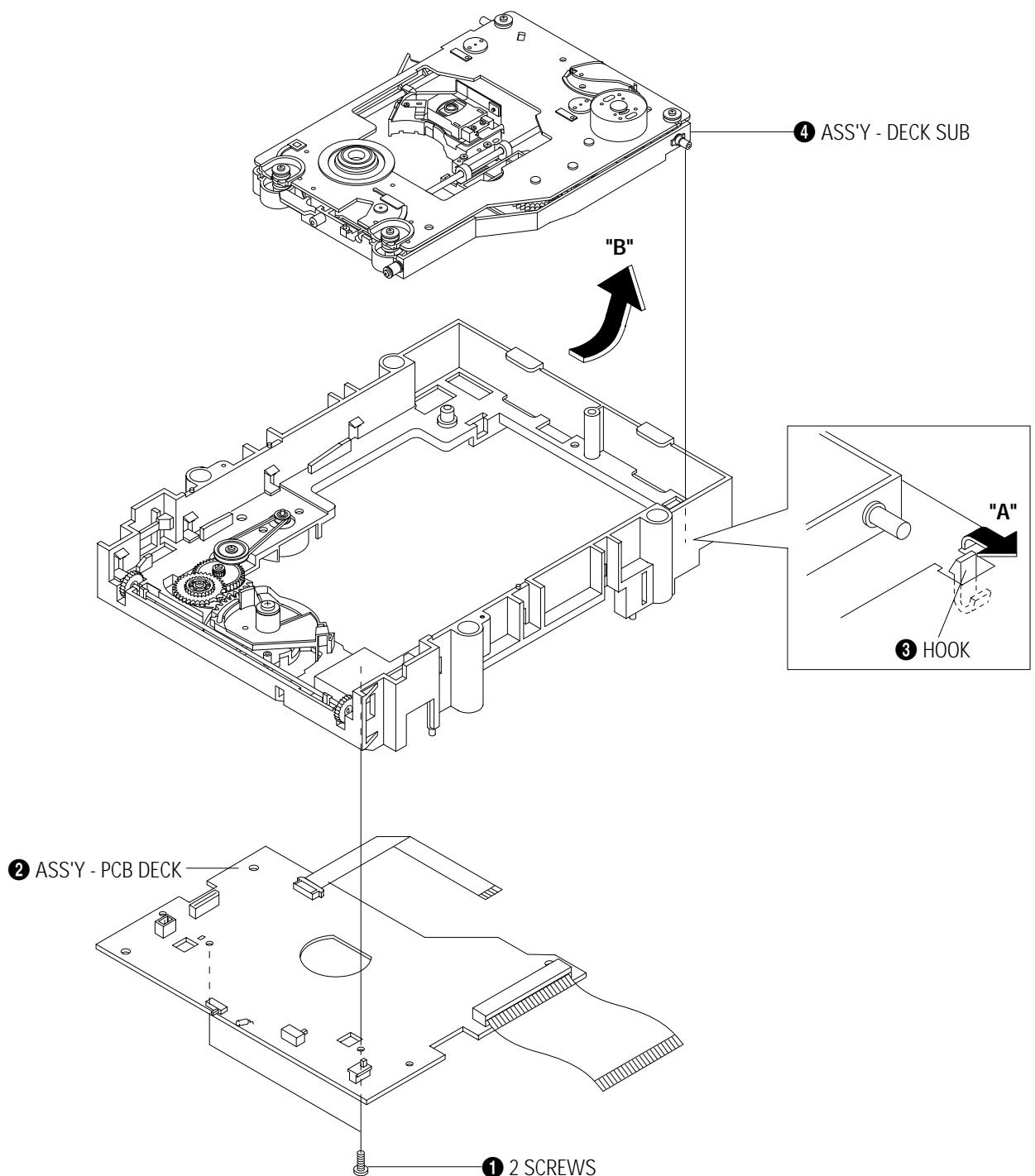


Fig. 4-9 Ass'y-Deck Sub Removal

4-4-3 Chassis-Main Parts Removal

- 1) Lift up the Gear-Tray ①, remove 1 Screw ② and lift up the Gear-Cam Center ③.
- 2) Lift up the Belt-Pulley ④, remove 1 Screw ⑤ and lift up the Pulley-Gear ⑥.
- 3) Remove 1 Screw ⑦ and lift up the Gear-Tray A ⑧ and Gear-Cam Sub ⑨.
- 4) Remove 2 Screws ⑩ and disassemble the Ass'y-Motor Load ⑪.
- 5) Remove 1 Screw ⑫ and disassemble the Lever-Open S/W ⑬.
- 6) Lift up the Shaft-Syncro ⑭ and remove the 2 Gear-Syncro ⑮ in both directions.

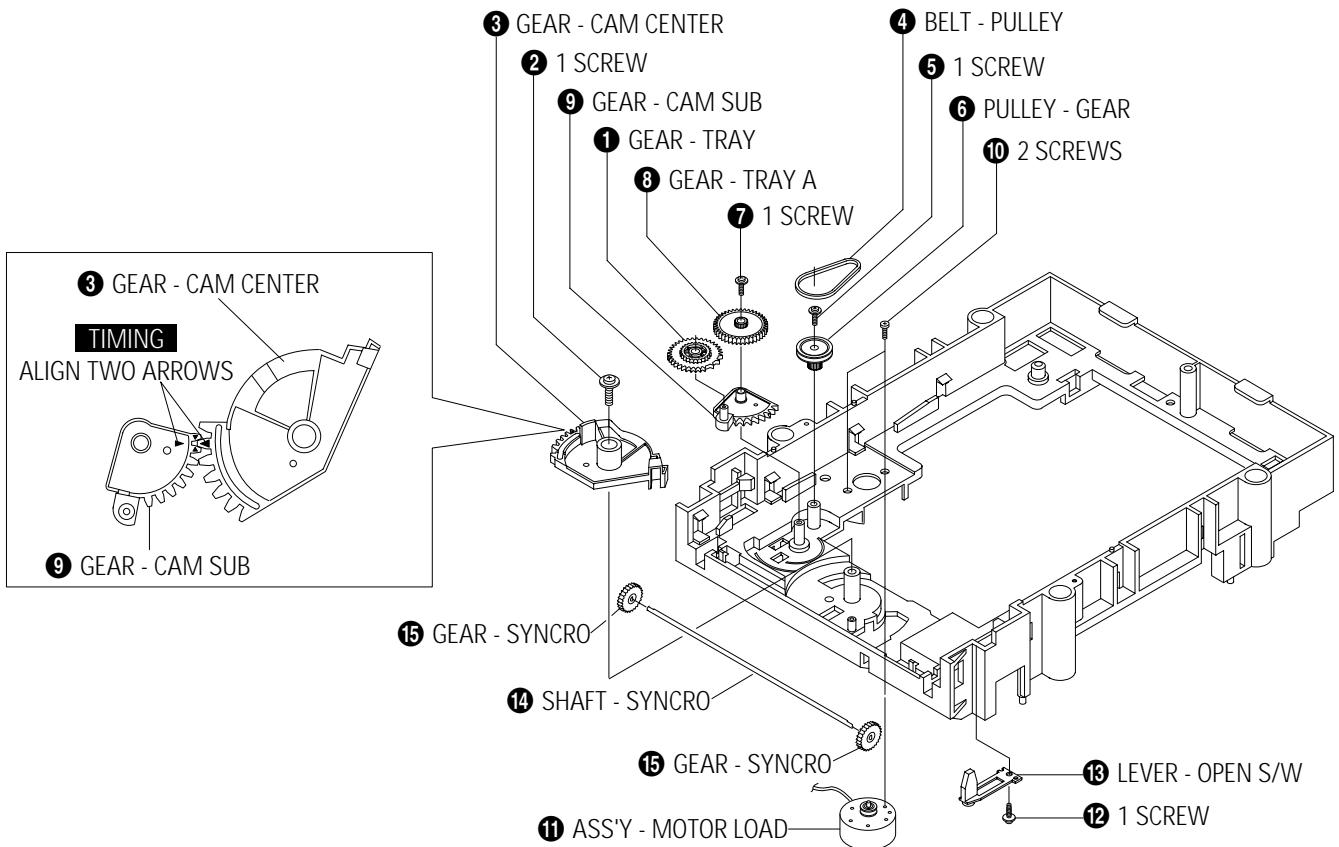


Fig. 4-10 Chassis-Main Parts Removal

4-4-4 Ass'y-Brkt Deck Removal

- 1) Remove 4 Screws ①.
- 2) Lift up the Ass'y-Brkt Deck ②.

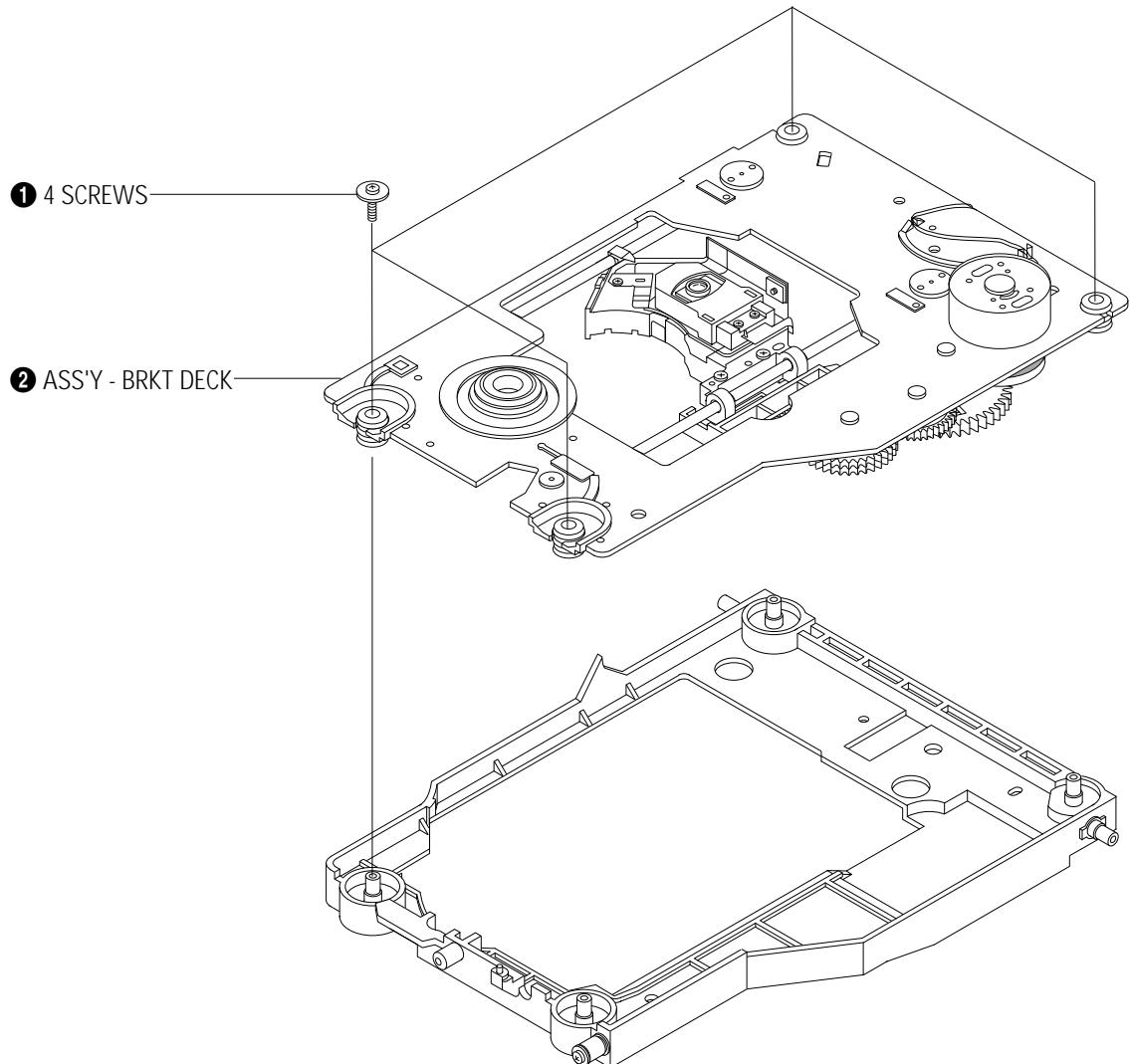


Fig. 4-11 Ass'y-Brkt Deck Removal

4-4-5 Ass'y- Deck Parts Removal

- 1) Remove 3 Screws ① and disassemble 3 Holder-Cams ②.
- 2) Disassemble the Rack-Slide ⑤ and Ass'y-Pickup ⑥, 2 Screws ④ while simultaneously removing the Shaft-P/U ③.
- 3) Remove 3 Screws ⑦ and disassemble the Ass'y-Motor Spindle ⑧.
- 4) Remove the Washer-Plain ⑨ and disassemble the Ass'y-Gear Feed AU/AL ⑩.
- 5) Remove the Washer-Plain ⑪ and disassemble the Gear-Feed B ⑫.
- 6) Remove the Washer-Plain ⑬ and disassemble the Ass'y-Gear Feed CU/CL ⑭.

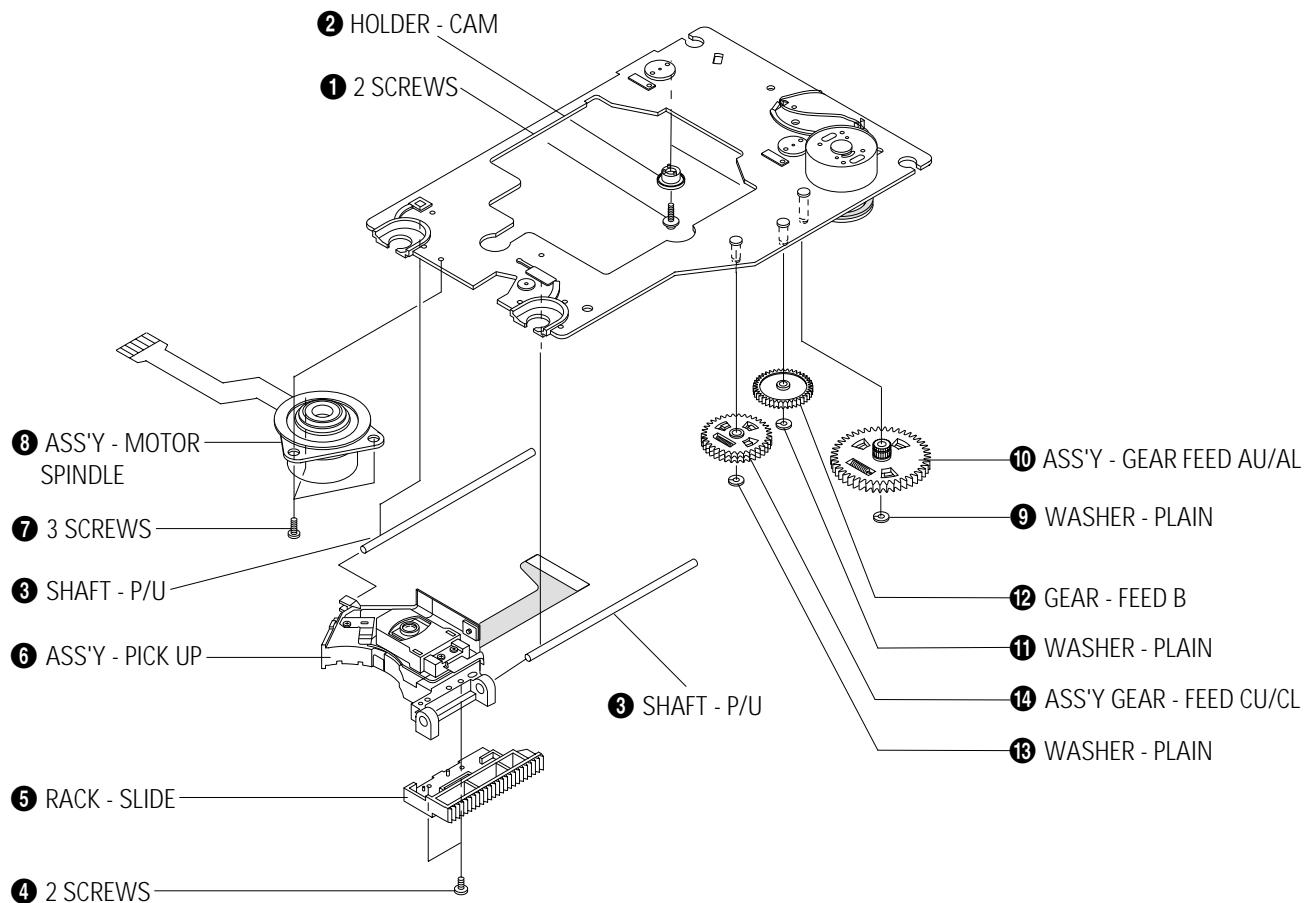


Fig. 4-12 Ass'y- Deck Parts Removal

5. Circuit Descriptions

5-1 S.M.P.S.

5-1-1 Comparsion between Linear Power Supply and S.M.P.S.

5-1-1 (a) Linear

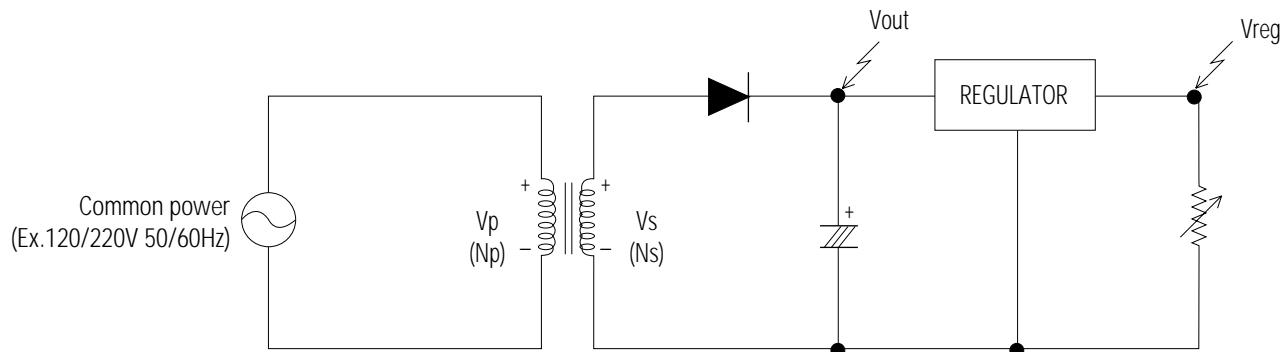


Fig. 5-1 Linear Power Supply

◆ Waveform/Description

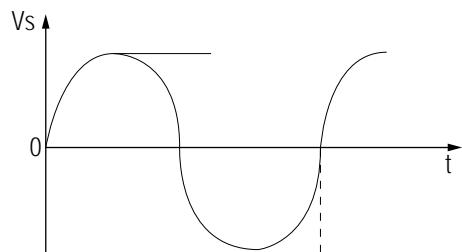


Fig. 5-2

Input : Common power to transformer (V_p).

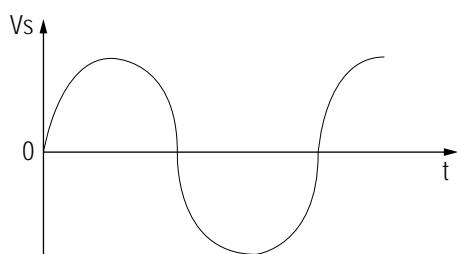
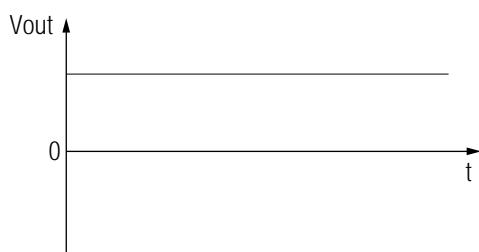


Fig. 5-3

The output V_s of transformer is determined by the ratio of 1st N_p and 2nd N_s .
$$V_s = (N_s/N_p) \times V_p$$



V_{out} is output (DC) by diode and condensor.

Fig. 5-4

- ◆ Advantages and disadvantages of linear power supply

1) Advantages : Little noise because the output waveform of transformer is sine wave.

2) Disadvantages :

- ① Additional margin is required because Vs is changed (depending on power source). (The regulator loss is caused by margin design).
- ② Greater core size and condenser capacity are needed, because the transformer works on a single power frequency.

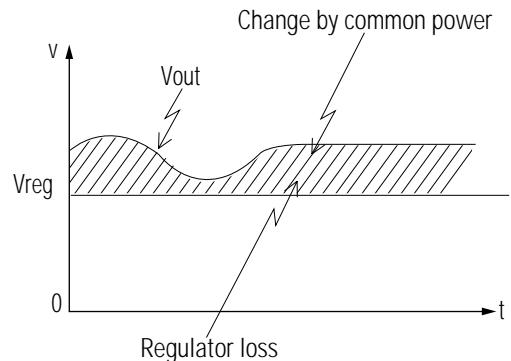


Fig. 5-5

5-1-1 (b) S.M.P.S. (Pulse width modulation method)

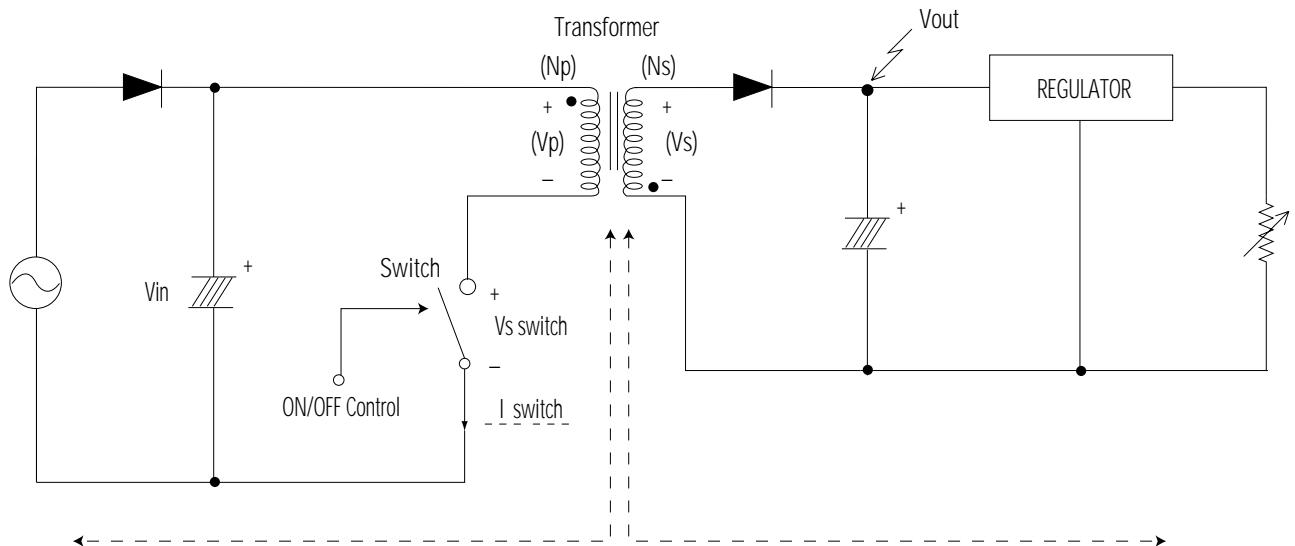


Fig. 5-6

- ◆ Terms

- 1) 1st : Common power input to 1st winding.
- 2) 2nd : Circuit followings output winding of transformer.
- 3) F (Frequency) : Switching frequency (T : Switching cycle)
- 4) Duty : $(T_{on}/T) \times 100$

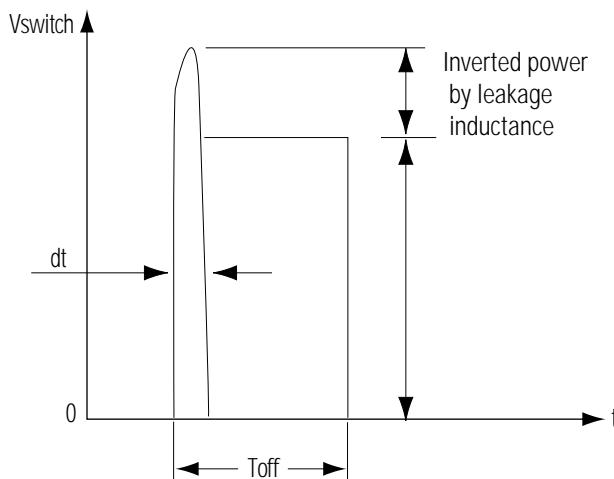
5-1-2 Circuit description (FLY-Back PWM (Pulse Width Modulation) Control)

5-1-2 (a) AC Power Rectification/Smoothing Terminal

- 1) PD01,PD02,PD03,PD04 : Convert AC power to DC(Wave rectification)
- 2) PE3 : Smooth the voltage converted to DC(Refer to VIN of Fig. 6-7)
- 3) PC01, PC02, PC10, PC11, PC12, PC13, PL01, PL02, PL03 : Noise removal at power input/output
- 4) PVA1 : SMPS protection at power surge input (PVA1 pattern open is to remove noise)
- 5) PR10 : Rush current limit resistance at the moment of power cord insertion.

- ① Rush current = $(AC \text{ input voltage} \times 1.414 - \text{Diode drop voltage}) / (\text{Pattern resistance} + PL02,01 \text{ resistance} + PC10 \text{ resistance} + PR10)$ (AC230V based : approx. 26A)
- ② Without PR10, the bridge diode might be damaged as the rush current increases.

5-1-2 (b) SNUBBER Circuit : PR15, PR16, PC04, PC05, PD11, PR17



- 1) Prevent residual high voltage at the terminals of switch during switch off/Suppress noise.
High inverted power occurs at switch (PIC1) off, because of the 1st winding of transformer : $(V = LI \times di/dt)$. LI : Leakage Inductance
A very high residual voltage exists on both terminals of PIC1 because dt is a very short.
- 2) SNUBBER circuit protects PIC1 from damage through leakage voltage suppression by RC, (Charges the leakage voltage to PD11 and PC04, and discharges to PR15 and PR16).
- 3) PC05, PR17 : For noise removal

Fig. 5-7

5-1-2 (c) PIC1 Vcc circuit

- 1) PR11, PR12, PR13, PR14 : PIC1 driving resistance (PIC1 works through driving resistance at power cord in)
- 2) PIC1 Vcc : PR18, PD12, PE6
 - ① Use the output of transformer as Vcc, because the current starts to flow into transformer while PIC1 is active.
 - ② Rectify to PD12 and smooth to PE6.
 - ③ Use the output of transformer as PIC1 Vcc : The loads are different before and after PIC1 driving.
(Vcc of PIC1 decreases below OFF voltage, using only the resistance due to load increase after PIC1 driving.)

5-1-2 (d) Feedback Control Circuit

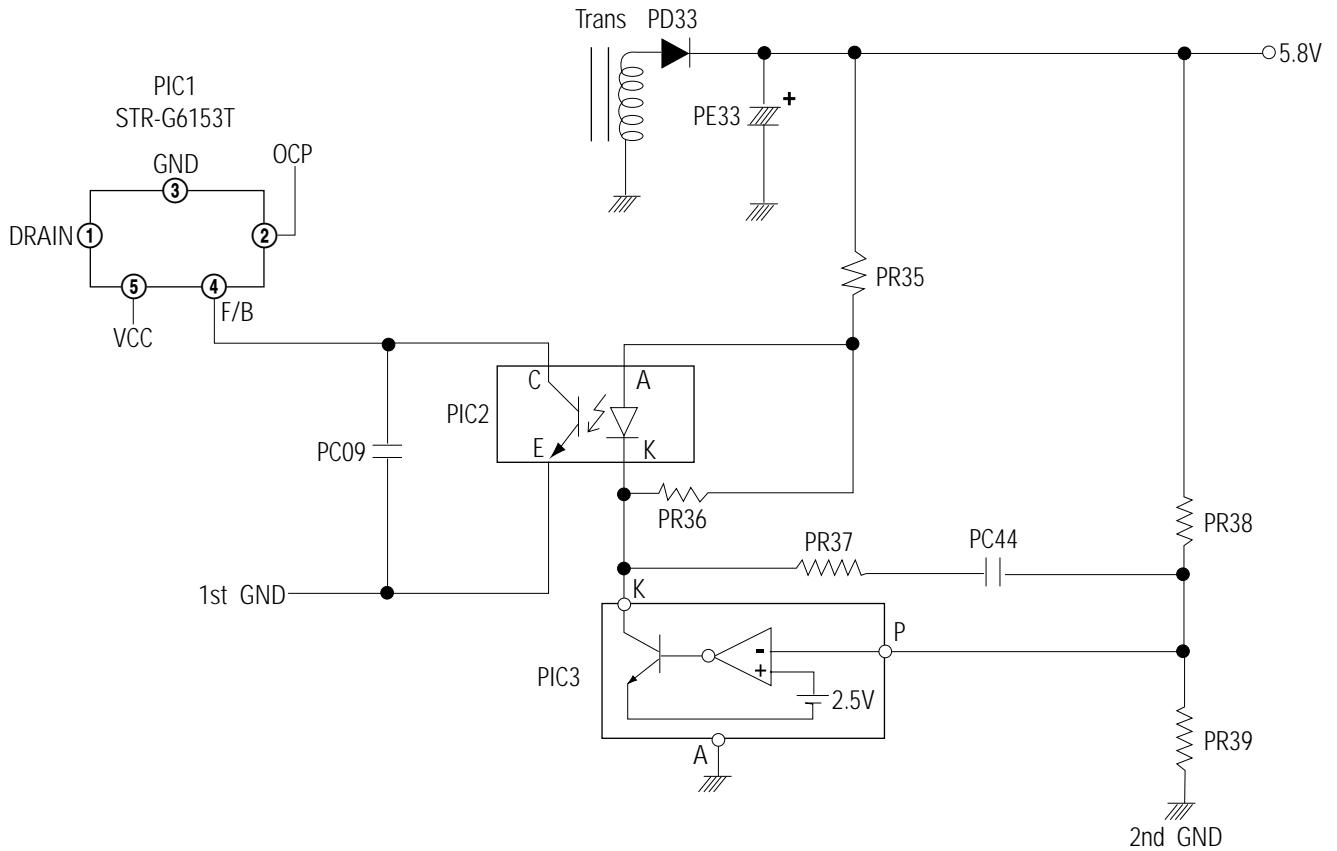


Fig. 5-8

- 1) F/B terminal of PIC1 determines output duty cycle.
- 2) C-E(Collector-Emitter) of PIC2 and F/B potential of PIC1 are same.

◆ Operation descriptions

- 1) Internal OP-Amp '+' base potential of PIC3 is 2.5V and external '-' input potential is connected with PR38 and PR39 to maintain Vout of 5.8V. ($V_{out} = ((PR36 \times PR39) / PR39) \times 2.5V$)
- 2) If load of 5.8V terminal increases(or AC input voltage decreases) and Vout decreases below 5.8V, then :
PIC3 'P' potential down below 2.5V --> PIC3 A-K of base current down --> PIC3 of A-K current down -->
PIC2 Diode current down --> PIC2 C-E current down --> PIC2 C-E voltage up --> PIC1 F/B voltage up -->
Out Duty up --> Transformer 1st current up --> Transformer 1st power up --> Vout up --> Maintain Vout 5.8V
- 3) If load of 5.8V terminal decreases(or AC input voltage rises) and Vout rises above 5.8V, then :
Reverse sequence of the above description --> Duty down --> Vout down --> Maintain 5.8V (i.e., the feedback to maintains 5.8V).
 - ① PR35, PR36 : Reduce 5.8V overshoot
 - ② PR37, PC44 : Prevent PIC3 oscillation(for phase correction)
 - ③ PC09 : Adjust feedback response rate

5-1-3 Internal Block Diagram

- ◆ Internal Block Diagram

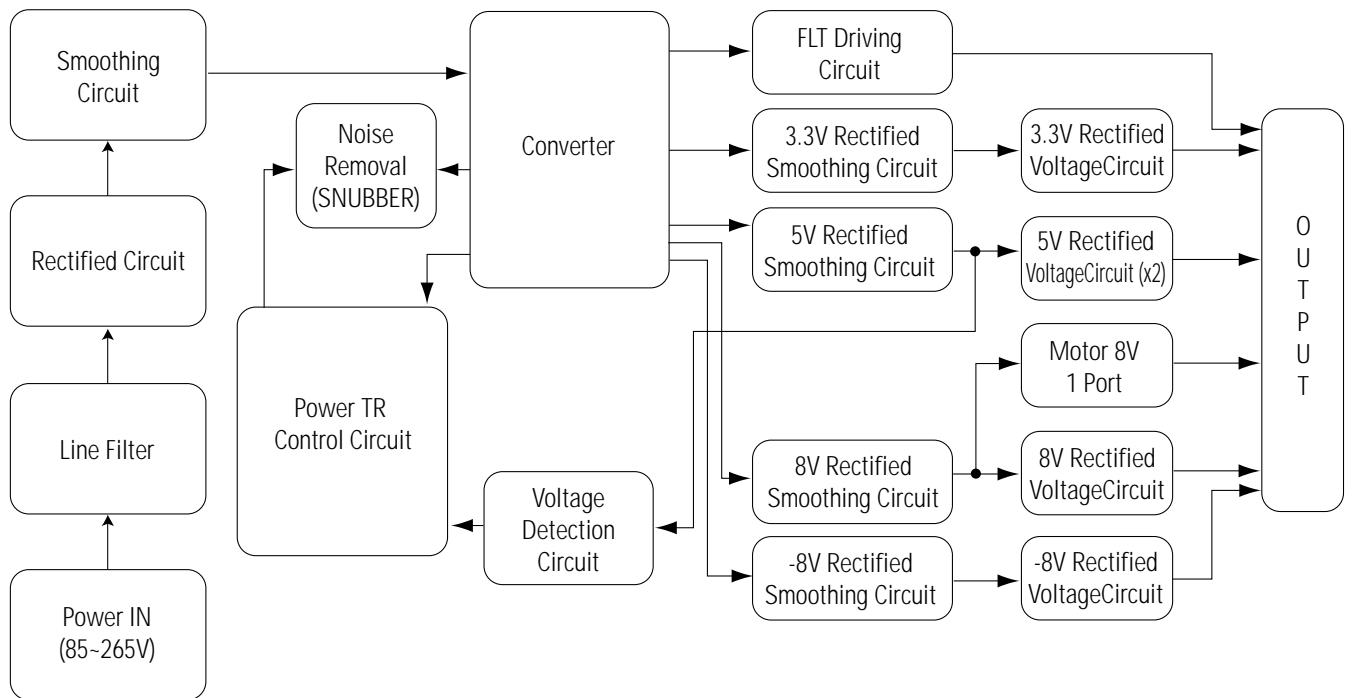


Fig. 5-9

5-2 RF

5-2-1 RIC1 (KS1461)

KS1461 is combined with KS1452 and KS1453 as bipolar IC developed for DVD SERVO system. Main features include DVD waveform equalizing, CD waveform equalizing, focus error signal generation, 3-beam tracking error signal generation, DPD 1-beam tracking error, defect, envelope, MIRR output, etc. after receiving the pick-up output converted into I/V.

5-2-1 (a) Basic Potentiometer

KS1461 uses a single power method and each circuit is based on V_D of 2.5V. V (Pin 12, 20, 24, 67) terminal is needed for IC, which uses the peripheral V_D.

5-2-1(b) RF signal

Fig. 5-10 shows the flow of signal generated by the pick-up.

A, B, C, D signals detected from pick-up are converted in to RF signal(A+B+C+D) via RF summing AMP.

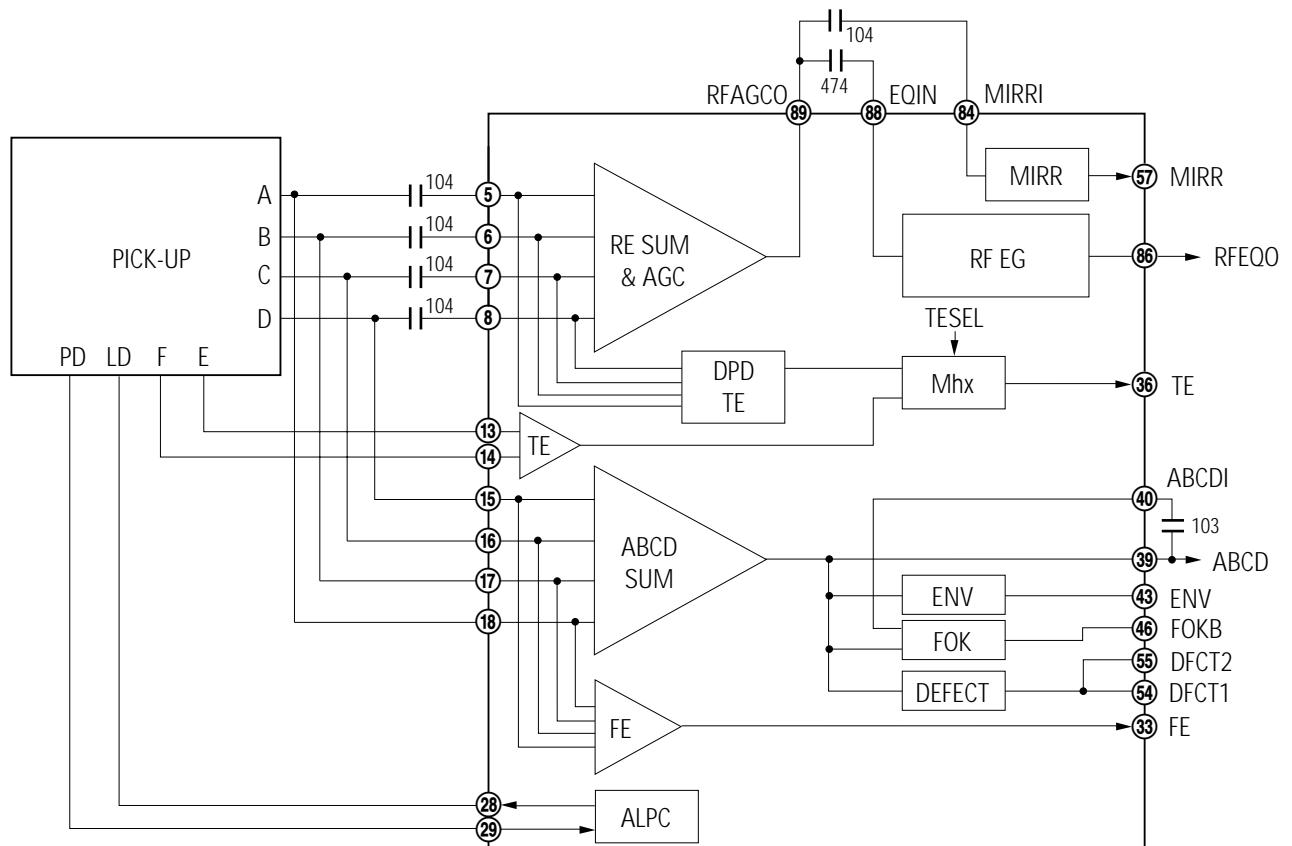


Fig. 5-10

Fig. 5-11 shows the waveform-equalizing block diagram for the RF signal.

It outputs to EQout (Pin 86) terminal by initially changing switching AMP gain of DVD and CD, and then adjusting the level in RF SUM & AGC. It controls RF SUM & AGC gain by means of Pin 89-95 and interfaces with PWM signal, (output from PWM terminal of KS1453, via low-pass filter to adjust boost gain and peak frequency).

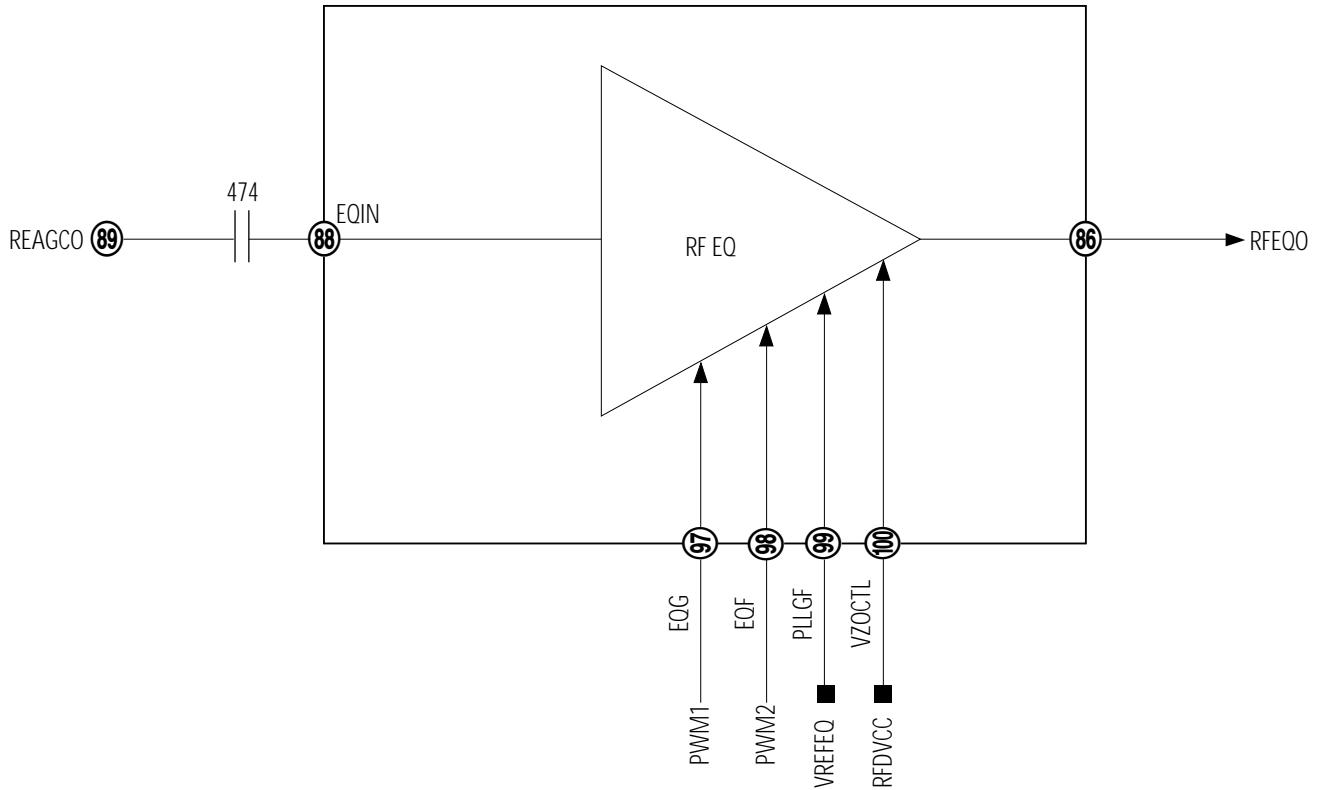


Fig. 5-11

The control parameters of DVD EQ and CD EQ are as follows.

1) DVD CD EQ control parameter

- ① **EQG** (Pin 97) : Changes the gain of peak frequency with EQ frequency characteristic. Convert PWM signal, output from KS1453, into DC via low-pass filter.
- ② **EQF** (Pin 98) : Changes the peak frequency with EQ frequency characteristic. Convert PWM signal, output from KS1453, into DVD via low-pass filter.

5-3 System Control

5-3-1 Outline

The main micom peripheral circuit is composed of 16bit Micom (MIC1 ; TMP93CM41F), 2M EPROM (MIC8 ; AM27C020) for Microcode and data save, 512 byte EE-PROM (NIC5 ; KS24C020) for permanent storage of data needed at power off, The Micom (MIC1 ; TMP93CM41F) mounted in main board analizes the key commands of front panel or instructions of remote control through communication with Micom (FIC1 ; LC86P6232) of front and controls the devices on board to execute the corresponding commands after initializing the devices connected with micom on board at power on.

5-3-2 Block Diagram

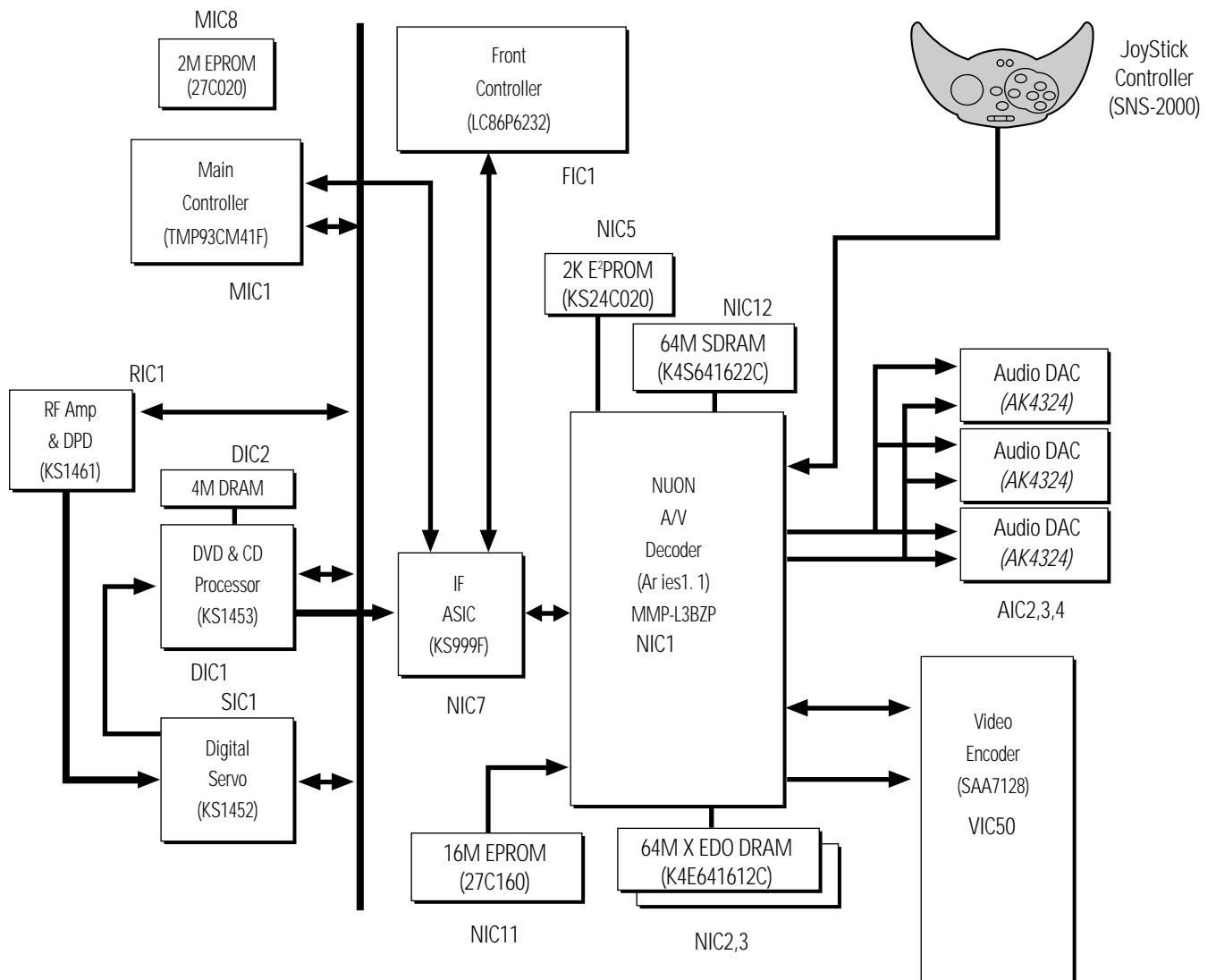


Fig. 5-12

5-4 Servo

5-4-1 Outline

SERVO system of DVD is divided into Focusing SERVO, Tracking SERVO, SLED Linked SERVO and CLV SERVO (DISC Motor Control SERVO).

1) Focusing SERVO

Focuses the optical spot output from object lens onto the disc surface. Maintains a uniform distance between object lens of Pick-up and disc (for surface vibration of disc).

2) Tracking SERVO

Make the object lens follow the disc track in use of tracking error signal (created from Pick-up).

3) SLED Linked SERVO

When the tracking actuator inclines outwardly as the object lens follows the track during play, the SLED motor moves slightly (and counteracts the incline).

4) CLV SERVO (DISC Motor Control SERVO)

Controls the disc motor to maintain a constant linear velocity (necessary for RF signal).

5-4-2 Block Diagram

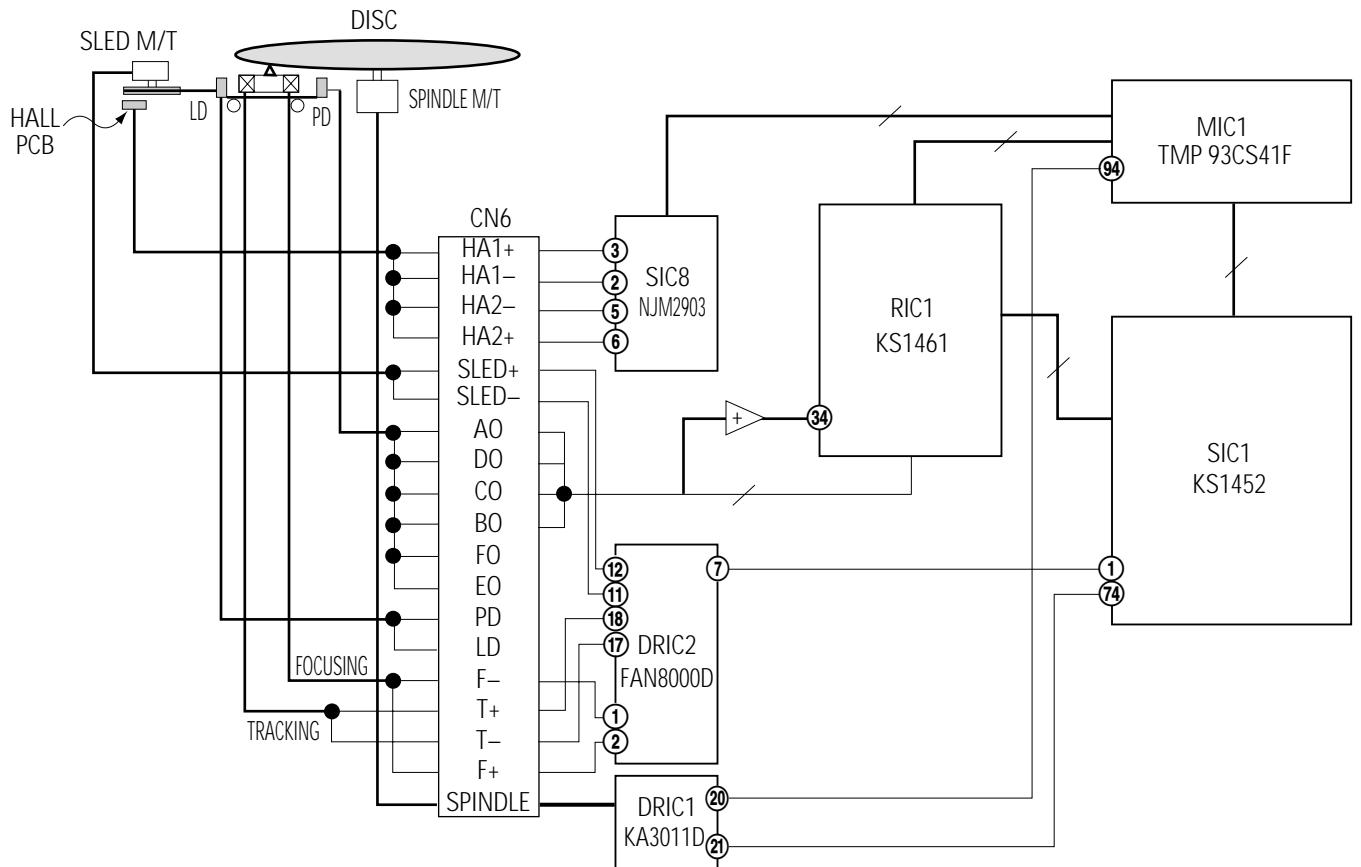


Fig. 5-13

5-4-3 Operation

1) FOCUSING SERVO

(1) FOCUS INPUT

The focus loop is changed from open loop to closed loop, and the triangular waveform moves the object lens up and down (at pin 75 of SIC1 during Focus SERVO ON.) At that time, S curve is input to pin 65 of SIC1.

ABCD (pin 39 of RIC1) signal, summing signal of PD A, B, C, D, is generated, and zero cross(2.5V) point occurs when S curve is focused and ABCD signal exceeds a preset,constant value. The focus loop is changed to closed loop, and the object lens follows the disc movement, maintaining a constant distance from the disc. (these operations are same in CD and DVD).

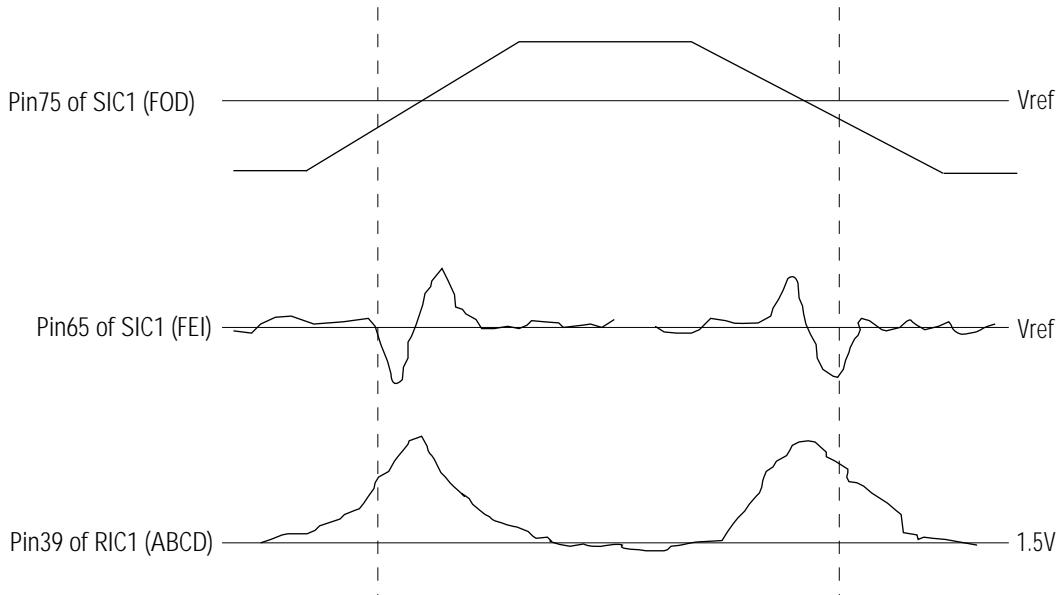


Fig. 5-14

(2) PLAY

When focus loop closes the loop during focus servo on, both pin 65 and pin 75 of SIC1 are controlled by VREF voltage (approx. 2.5V), and pin 1, 2 of DRIC2 are approximately 4.5V.

2) TRACKING SERVO

(1) NORMAL PLAY MODE

① For DVD

Composite : The signal output from PD A, B, C, D of Pick-up, the tracking error signal (pin36 of RIC1) uses the phase difference of A+C and B+D in RIC1, and inputs to terminal 64 of SIC1. Then, it is output to SIC1 pin 76 via digital equalizer, and applied to the tracking actuator through DRIC2.
Pins 76 of SIC1 is controlled by VREF(approx. 2.5V) during normal play.
Meanwhile, DVD repeats the track jump from 1 to 4 in inner direction at normal play (because data- read speed from disc is faster than data output speed on screen).

② For CD, VCD

Receive the signal output through E, F of Pick-up, from RIC1. The tracking error signal is similar to DVD.

(2) SEARCH Mode :

Search mode : Fine seek,(Moving the tracking actuator slightly little below 255 track) and coarse search, moving much in use of sled motor. The coarse search will be described in sled linked servo and now, the fine seek is explained shortly.

If the object lens is located near target, cut off the tracking loop and give the control signal as many as desired count to move the tracking actuator via SIC1 pin 76 terminal(TRD).

3) SLED LINKED SERVO

• Normal play mode

Move SLED motor slightly by means of PWM signal in SIC1 pin 73, as the tracking actuator moves along with track during play. Control to move the entire Pick-up as the tracking actuator moves.

• Coarse serach mode

In case of long-distance search (such as chapter serach), SIC1 uses Sled FG (SIC8 pin 1.7, which is generated) by rotation of sled motor via hall PCB.

Then, read ID and compute the existing track count after input of next track. If the existing track count is within fine seek range, tracking begins using fine seek.

4) CLV SERVO(DISC MOTOR CONTROL SERVO)

Input RF signal (from Pick-up) to SIC1 pin59. Detect SYNC signal from RF in SIC1, and output PWM signal to SIC1 pin 55 for constant linear velocity.

5-5 DVD Data Processor

5-5-1 Outline

DIC1(KS1453) performs Sync detection, EFM/EFM demodulation and error correction and Spindle motor control (CLV control) after inputting sliced EFM signal of RF signal at disc playback and EFM read clock (PLCK) signal generated from PLL. Outputs data which converted to the last audio and video from A/V decoder(NIC1). KS1453 uses external memory(4M DRAM) as buffer as well as for error correction and carries out Variable Bit Rate transfer function. VBR function uses the external buffer as buffer to absorb the difference of transfer rate occurring because the transfer rate of disc playback is faster than data transfer rate demanded by A/V decoder(Video/Audio Signal Process Chip).

In case of general disc refresh, the memory is almost filled up periodically. It is because Write rate to memory after disc playback and signal process is faster than Read of A/V decoder. When the memory is filled, this status is reported by interrupt to main micom, which controls the servo to kick back the pick-up to the previous track after memorizing the last data read from disc until now. It takes some times to jump to the previous track and return to the original(jump location) again. The memory will have an empty space because A/V decoder reads out data of memory.

When the memory has an empty space, where data can be processed and written and the pick-up correctly gets to the original location(before kick back location) again, it reads data again avoids the interrupt of data read previously. The basic operation repeats to perform as described above.

5-5-2 Block Diagram

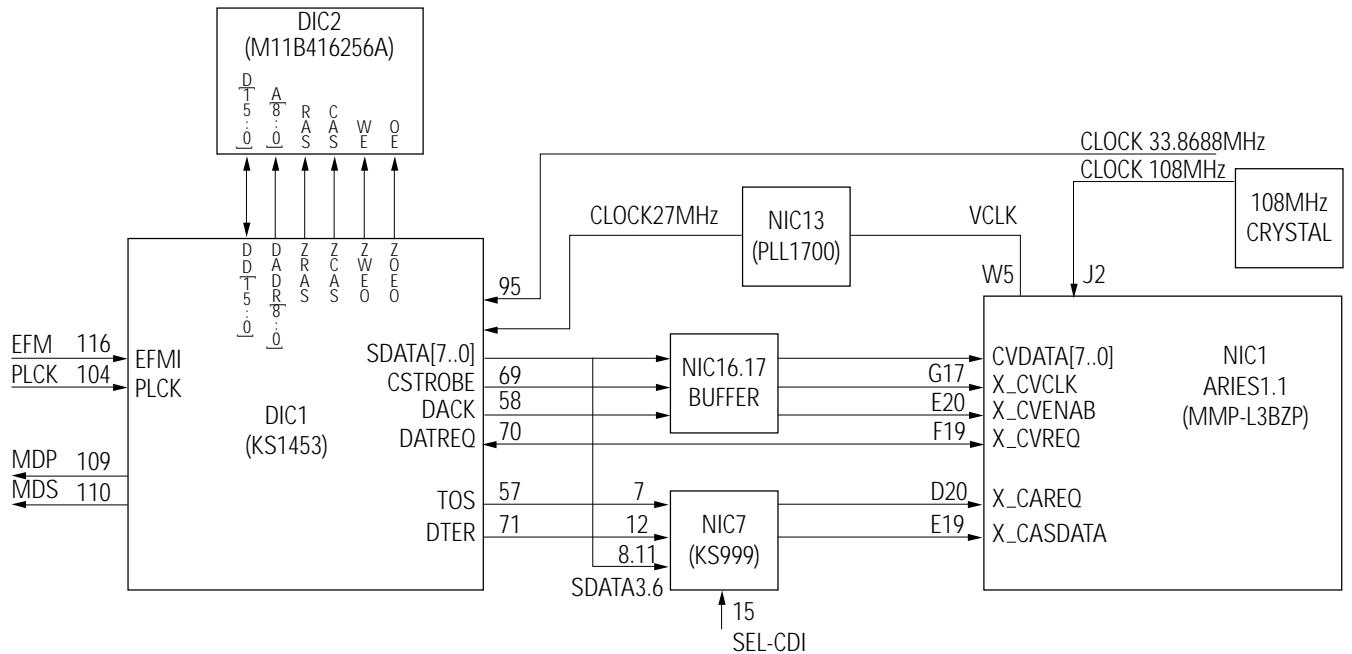


Fig. 5-15

5-6 Video

5-6-1 Outline

NIC1 (A/V decoder) sends CCIR-656 8bit video data to VIC50.

VIC50 does RGB encoding, copy guard processing and D/A conversion of 8bit video data inputted from NIC1 (A/V decoder) by control of NIC1.

Video signal converted into analog signal is outputted via amplifier of analog part.

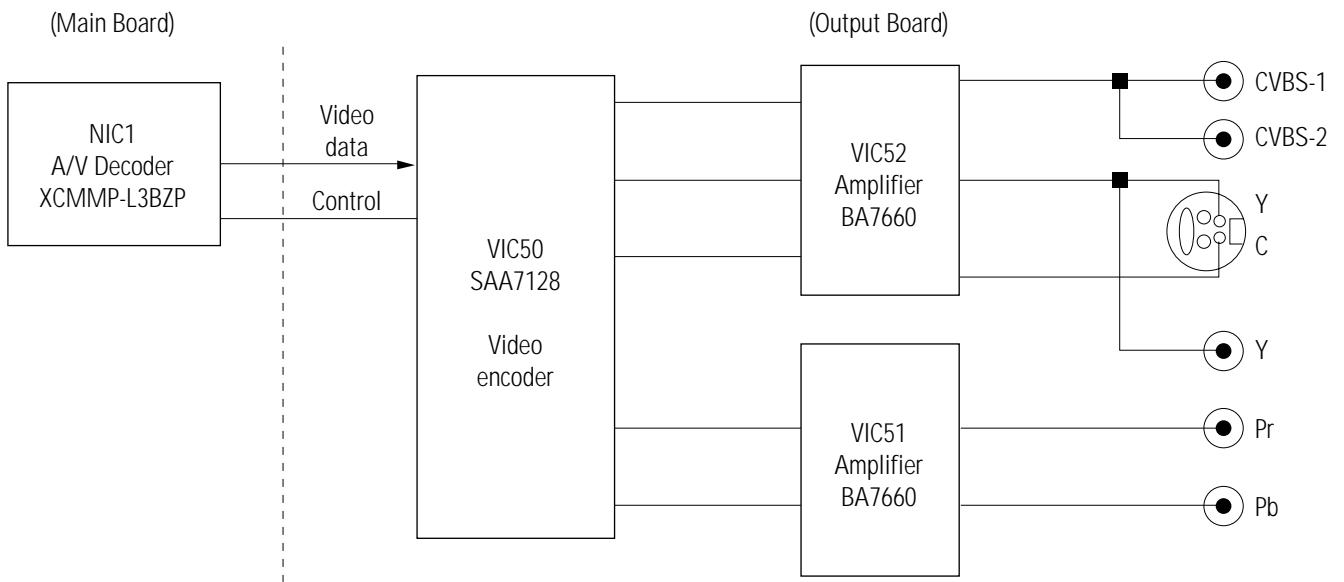


Fig. 5-16 Video Output Block Diagram

5-6-2 NTSC/PAL Digital Encoder (VIC50 : SAA7128)

CCIR 656 8bit data is inputted to Pin9(MSB) and Pin16 of VIC50 and the inputted data is demuxed with each 8bit of Y/R-Y/B-Y. The separate signal is encoded to NTSC or PAL by control of NIC1. The above signals, that is CVBS (Composite Video Burst Synchronized)(Pin30), S-Video (Y:Pin27, C:Pin24), Y/Pb/Pr(Pin27/Pin29/Pin23). In course of encoding, 8bit data can extend to 10bit or more. To convert the extended data to quantization noise as possible, VIC50 adopts 10bit D/A converter. VIC50 perform video en-coding as well as copy protection.

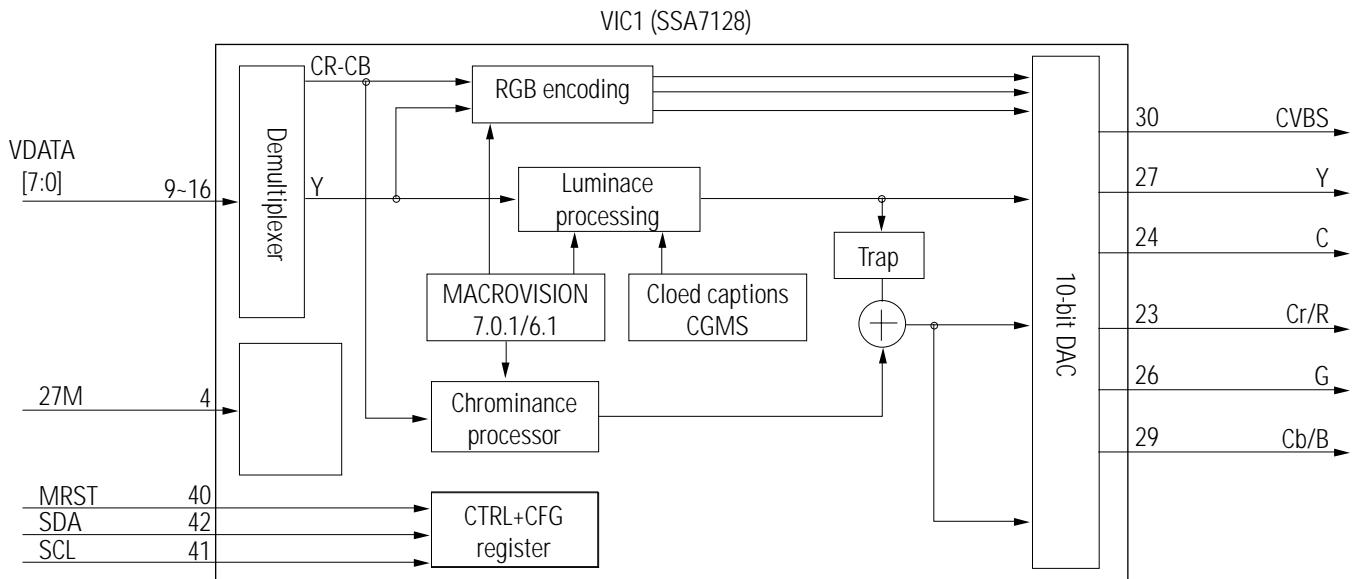


Fig. 5-17

5-6-3 Amplifier (VIC51, VIC52 : BA7660)

VIC51 and VIC52 are 6dB amplifier. Based on CVBS signal, the final output level must be 2Vpp without 75ohm terminal resistance. Because the level of video encoder output is only 1.1Vpp, the level is adjusted with the special amplifier. When mute of pin1 is high active, if the pin is floating and connected to power, the output signal is never outputted. CVBS, Y, C, Cr and Cb outputted from video encoder are inputted to VIC52 (Pin7, Pin2 and Pin4) and VIC51 (Pin7 and Pin4) respectively and outputted from VIC52 (Pin10, Pin15 and Pin13) and VIC51 (Pin10 and Pin13). Pin9, Pin12 and Pin14 of VIC51 and VIC52 are feedback pin to SAG compensation(DC characteristic compensation of signal). Resistance(VR3-VR14) which is inserted to input terminal is bias resistance for input offset. The signal to which gain is adjusted by amplifier is outputted from jack via 75ohm.

5-7 Audio

5-7-1 Outline

The four data (Data 0~2) outputted from A/V decoder (VIC1 ; XCMMP-L3BZP) are supplied to DATA 0~2 for Analog audio output (5.1-channel).

The audio data (0~2) transmitted from A/V decoder (VIC1) are converted into analog signal via audio D/A converter and outputted via post filter and amplifier.

CD and VCD are outputted with only 2 channels audio data and transmit them to Data 0.

Front L/R channel is outputted in audio output (L/R output) and surround L/R, center and subwoofer aren't outputted.

If DVD of 2 channels source disc is used, it is outputted by the same way with CD and VCD.

If 5.1-channel source disc, front L/R channel is outputted in Data 0, Surround L/R in Data 1 and Center/Subwoofer in Data 2.

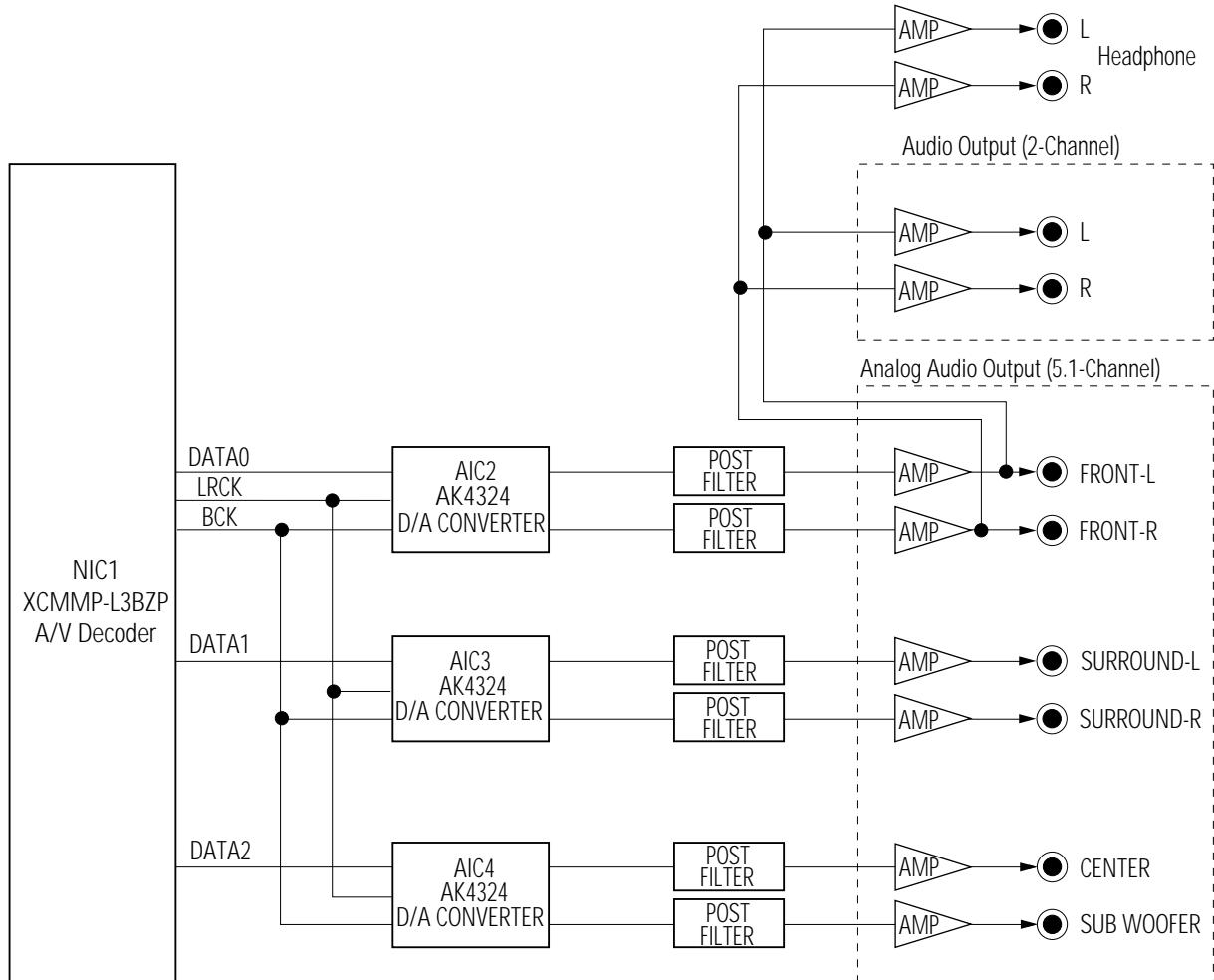


Fig. 5-18 Audio Output Block Diagram

5-7-2 DVD Audio Output

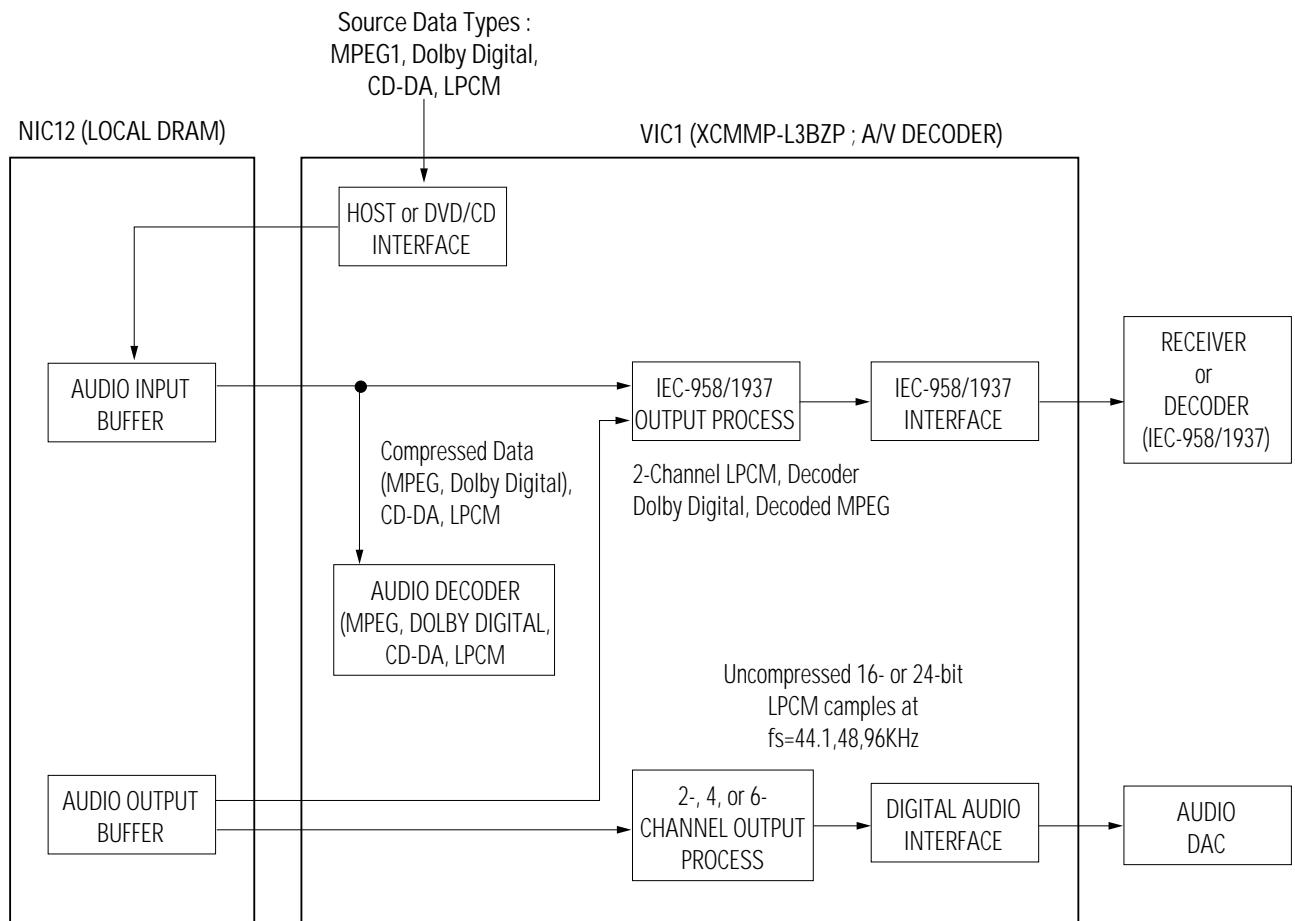


Fig. 5-19 Audio Decoder and Output Interface Datapath

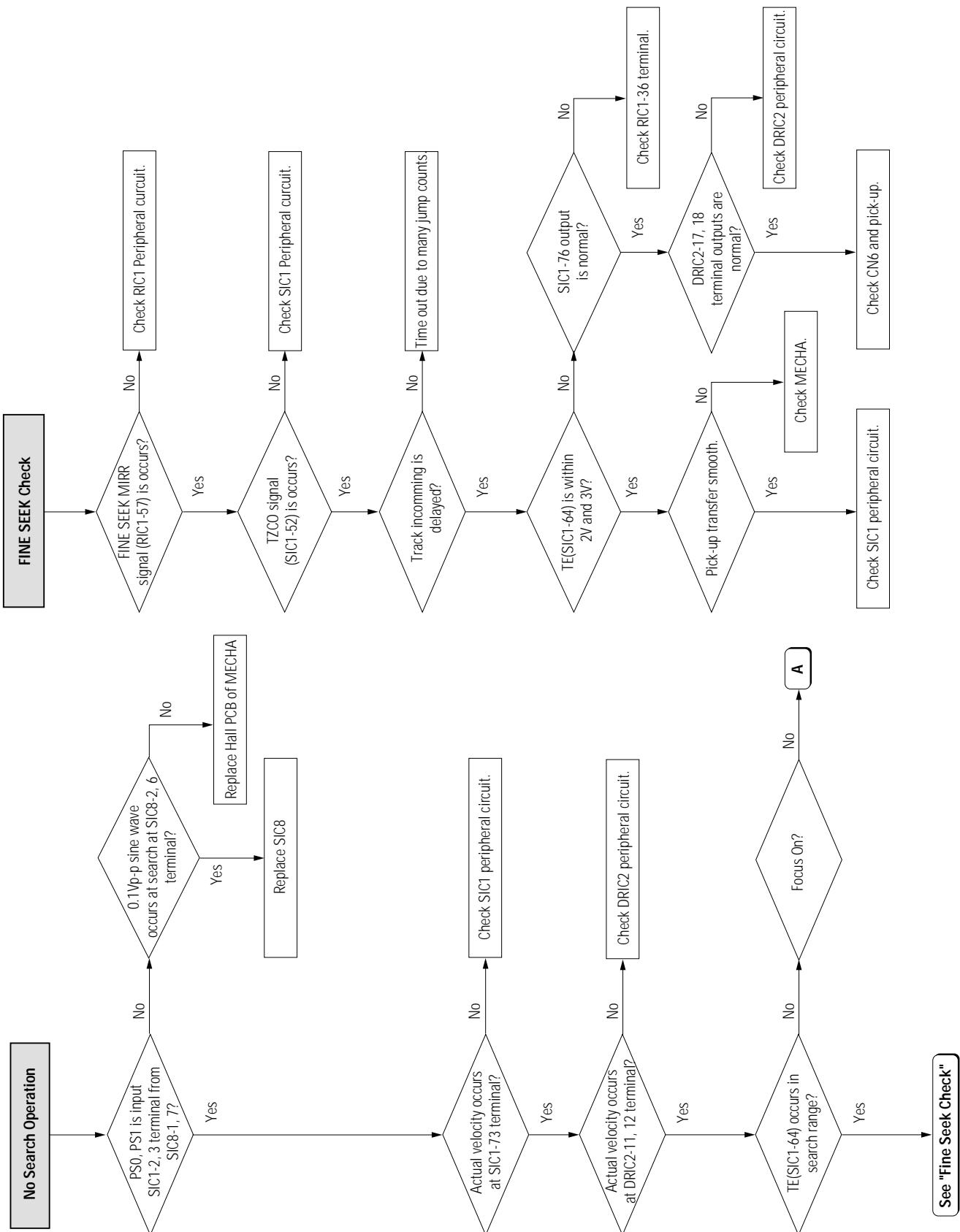
1) Compressed Data

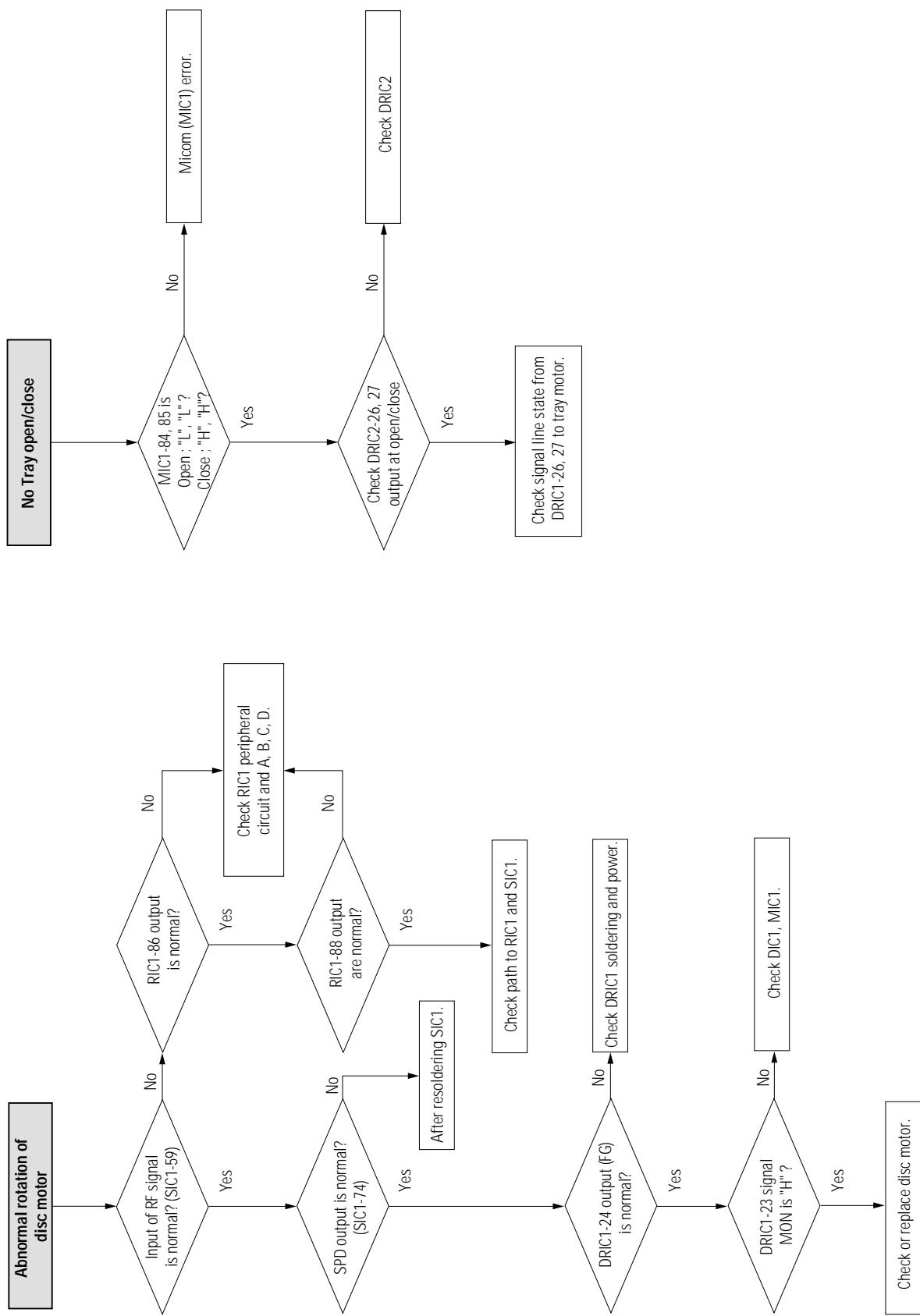
The audio data inputted to VIC1 A/V decoder is divided into compressed data and uncompressed data. It is compressed data that is compressed with multi-channel audio data such as Dolby digital, MPEG, DTS, etc. The compressed data inputted to VIC1 is converted into the uncompressed data of 2, 4, and 6 channels through XCMMMP-L3BZP built-in audio decoder and is outputted to Data 0, 1 and 2 through digital audio interface. The compressed data is transmitted to external AC-3 amplifier or MPEG/DTS amplifier as IEC-958/1937 transmission data format compressed by XCMMMP-L3BZP built-in IEC-958 output process.

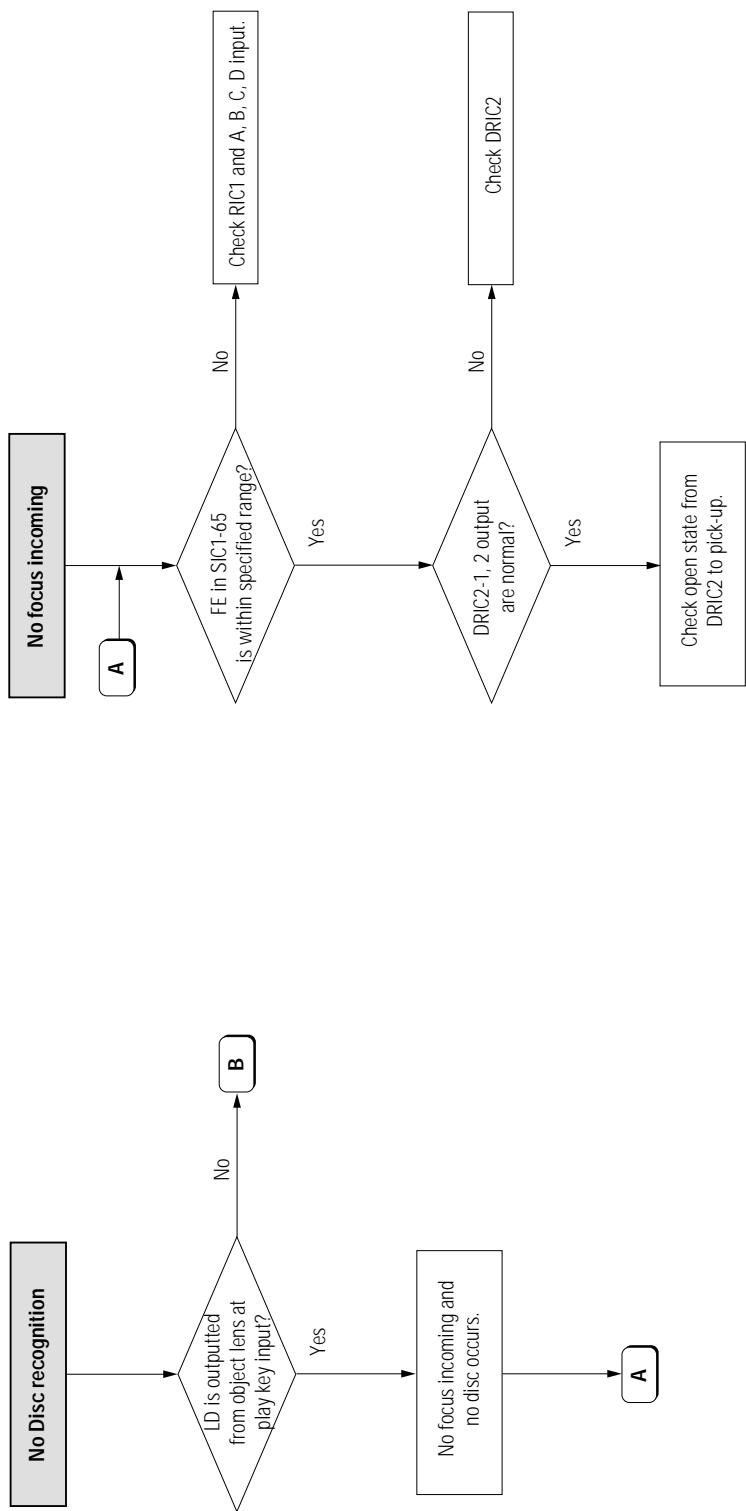
2) Uncompressed Data

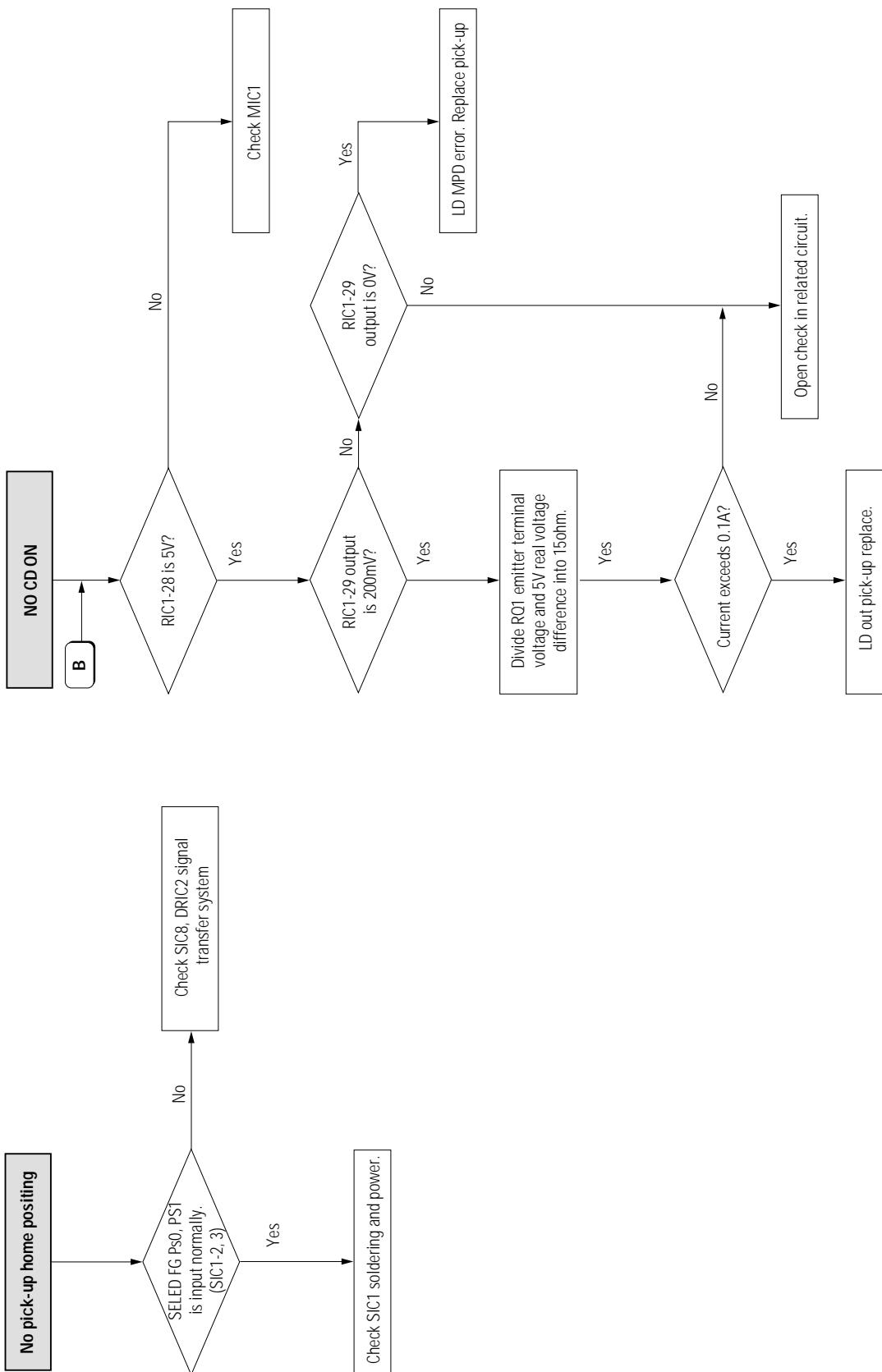
The uncompressed data is that data isn't compressed, so it is called CD-DA, LPCM data. The 2 channels data is converted through audio decoder 2-channel data and Data 0 and Data 1 are outputted in digital audio interface. Via IEC-958 output process, they are transmitted to digital amplifier or AC-3/MPEG/DTS amplifier built in the external digital input source with IEC-958/1937 transmission format.

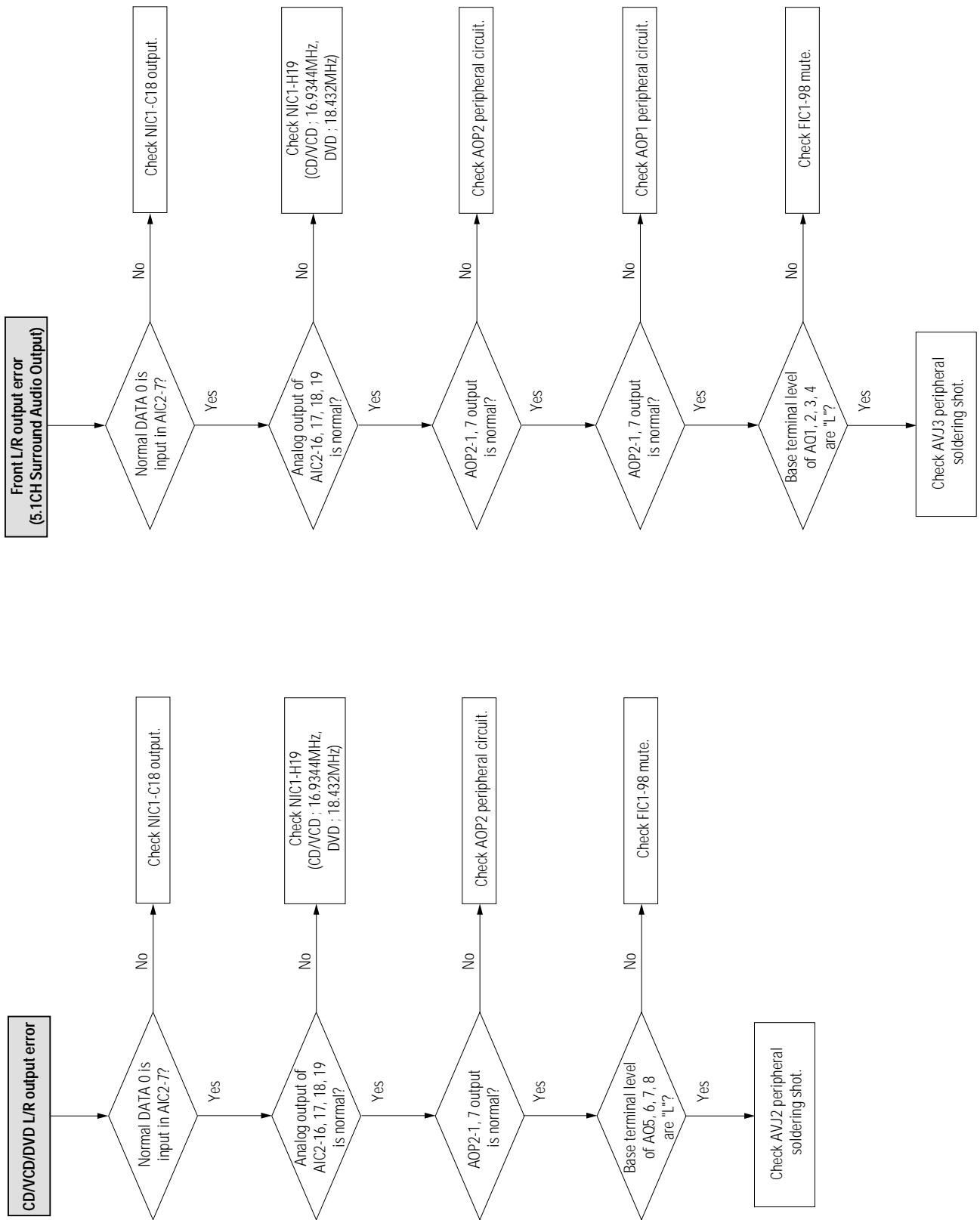
6. Troubleshooting

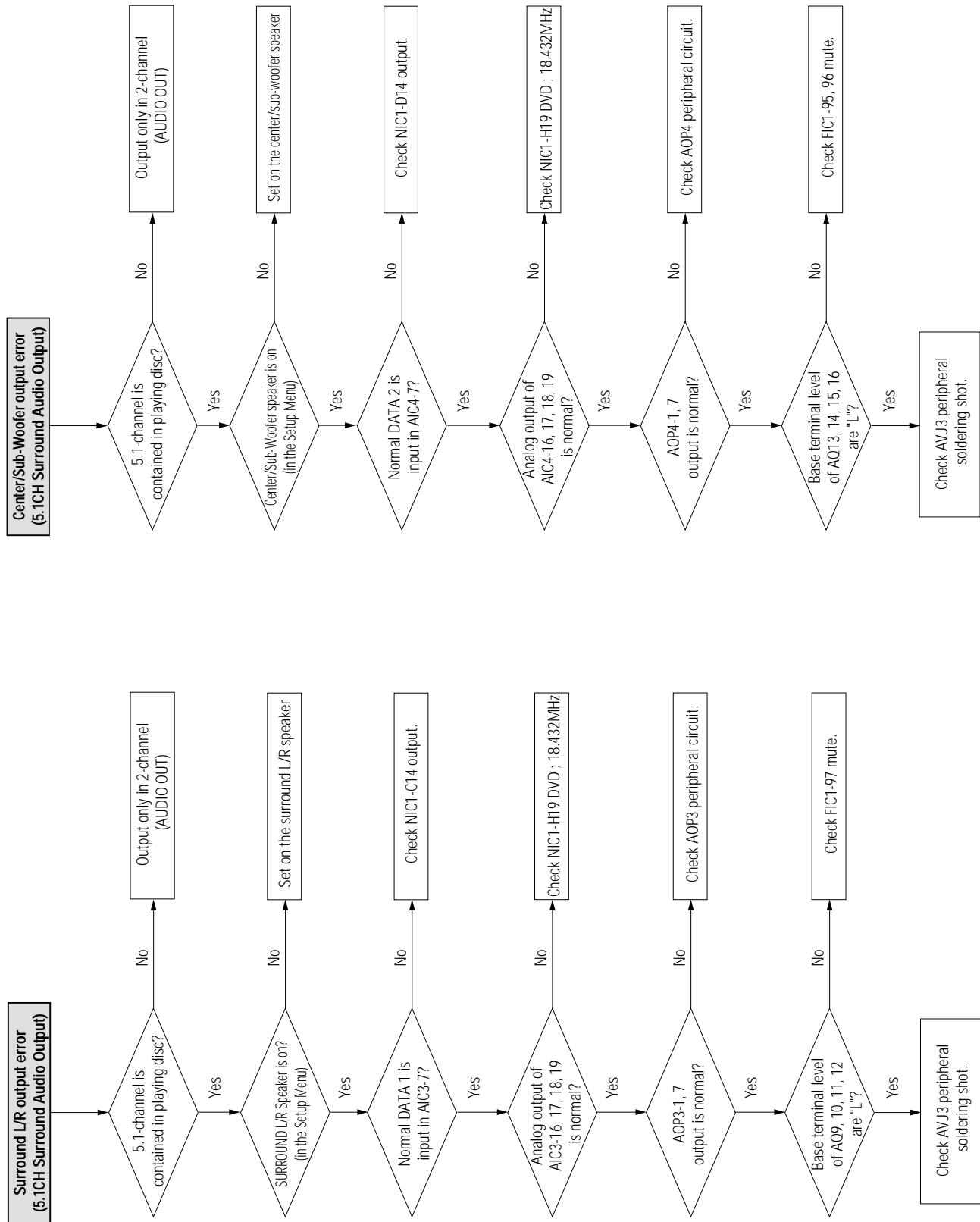


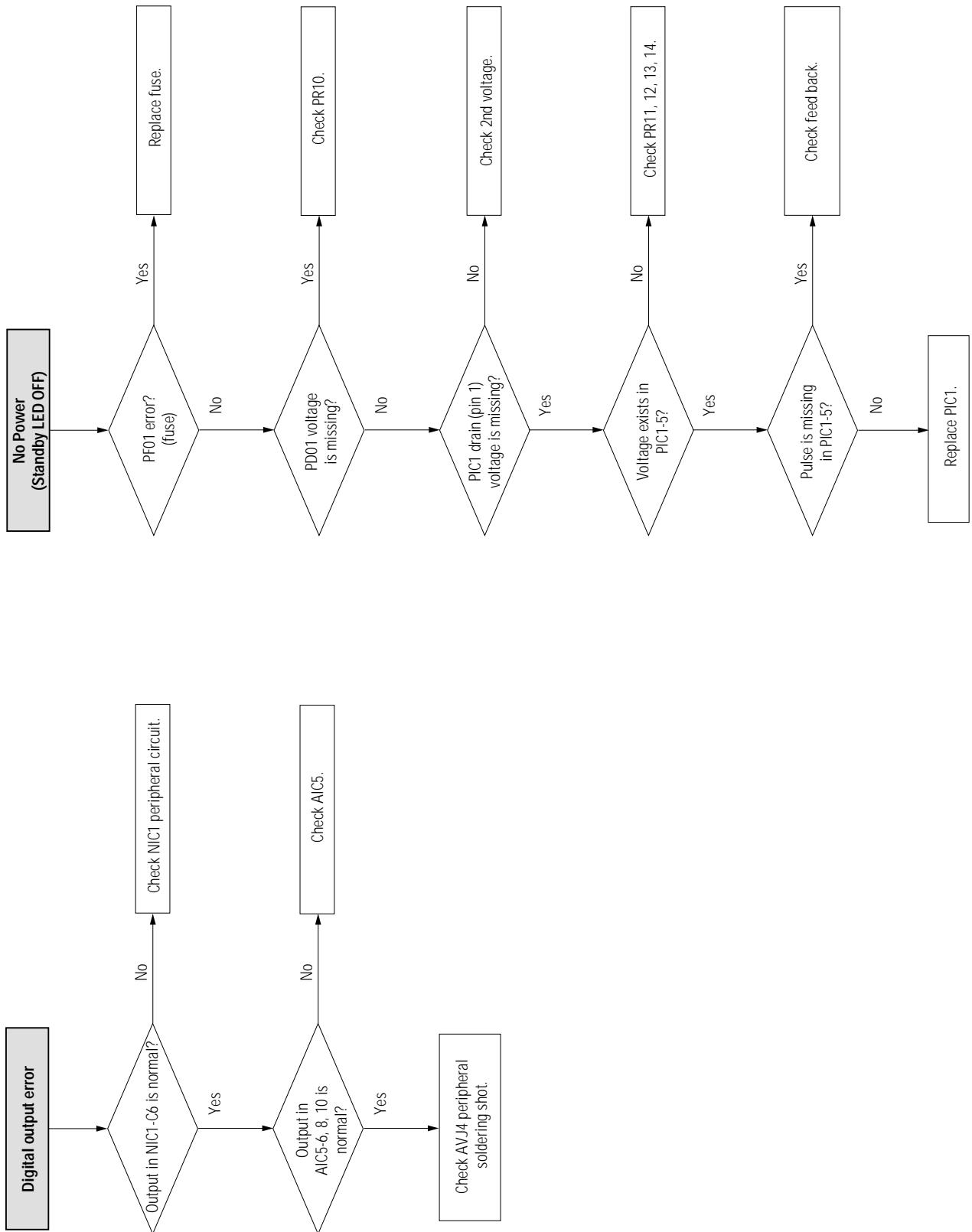


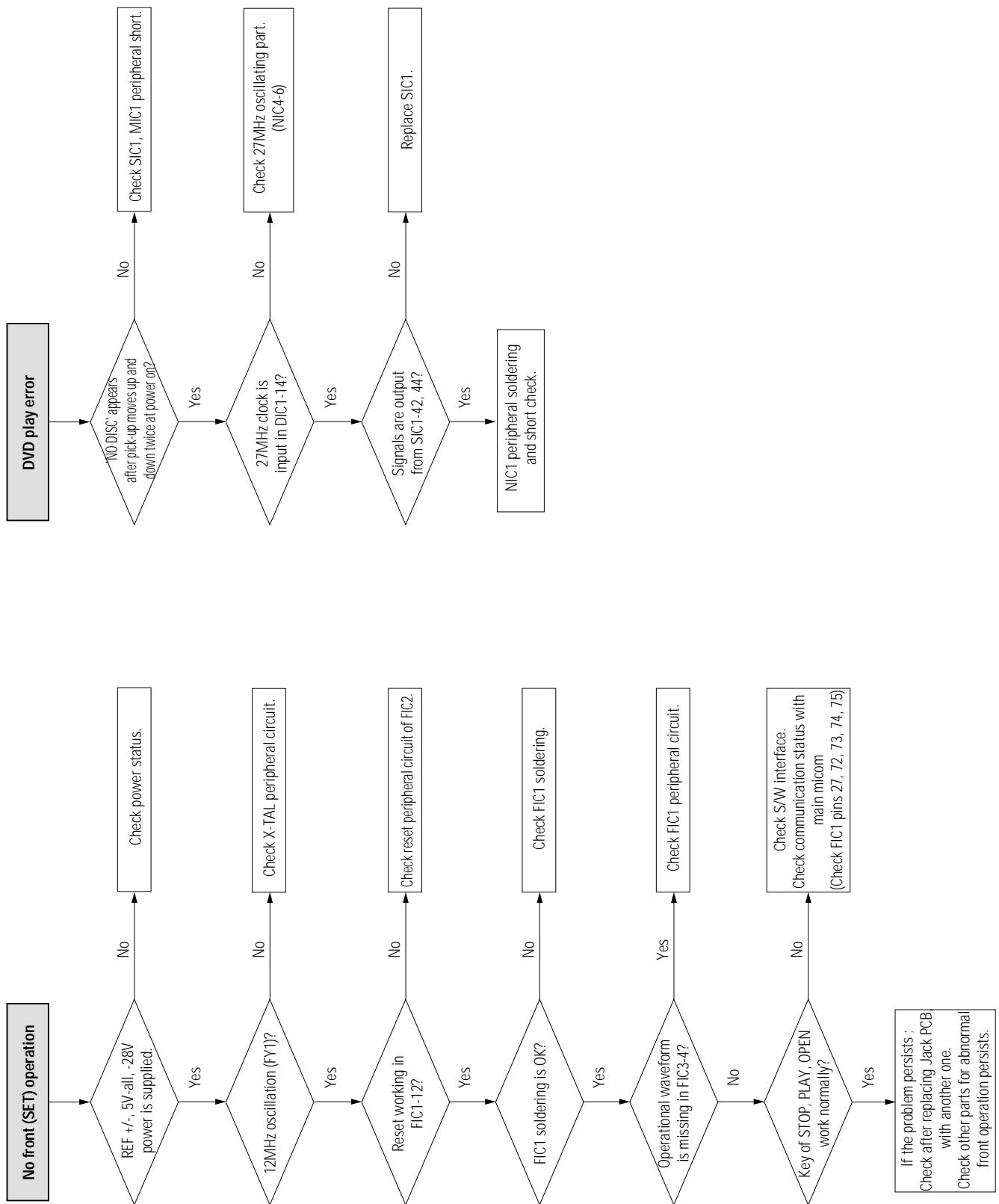


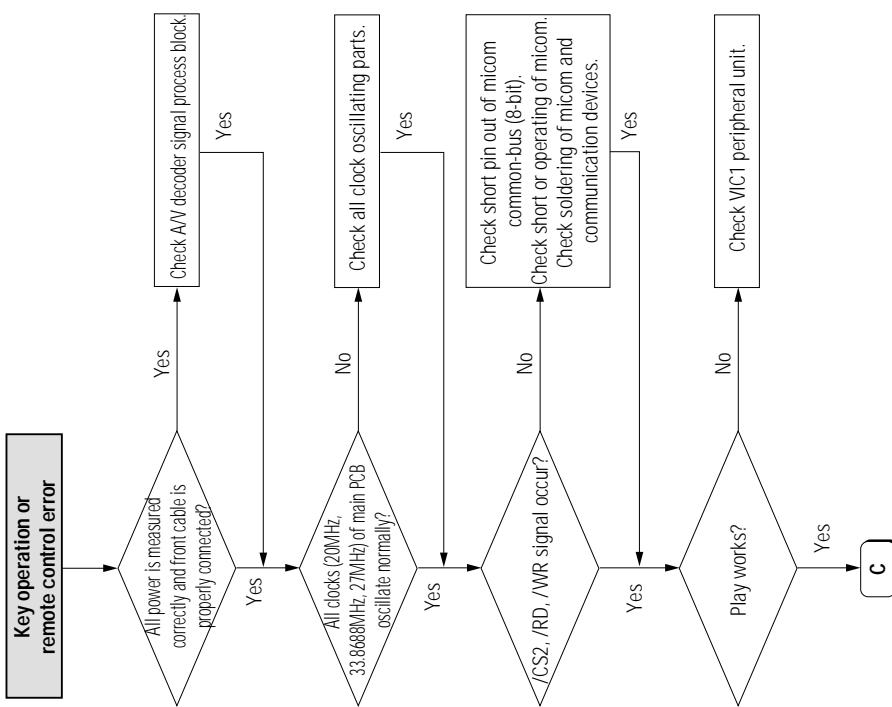
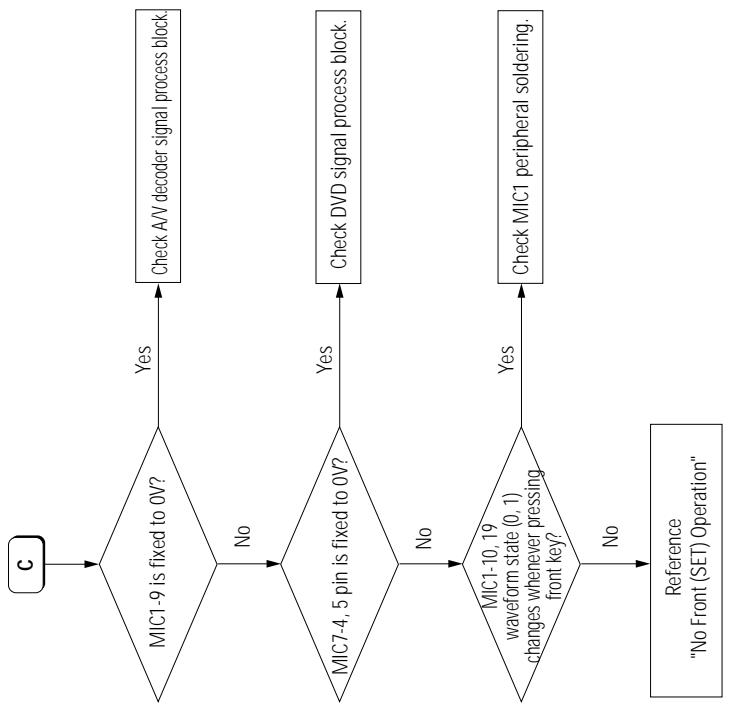


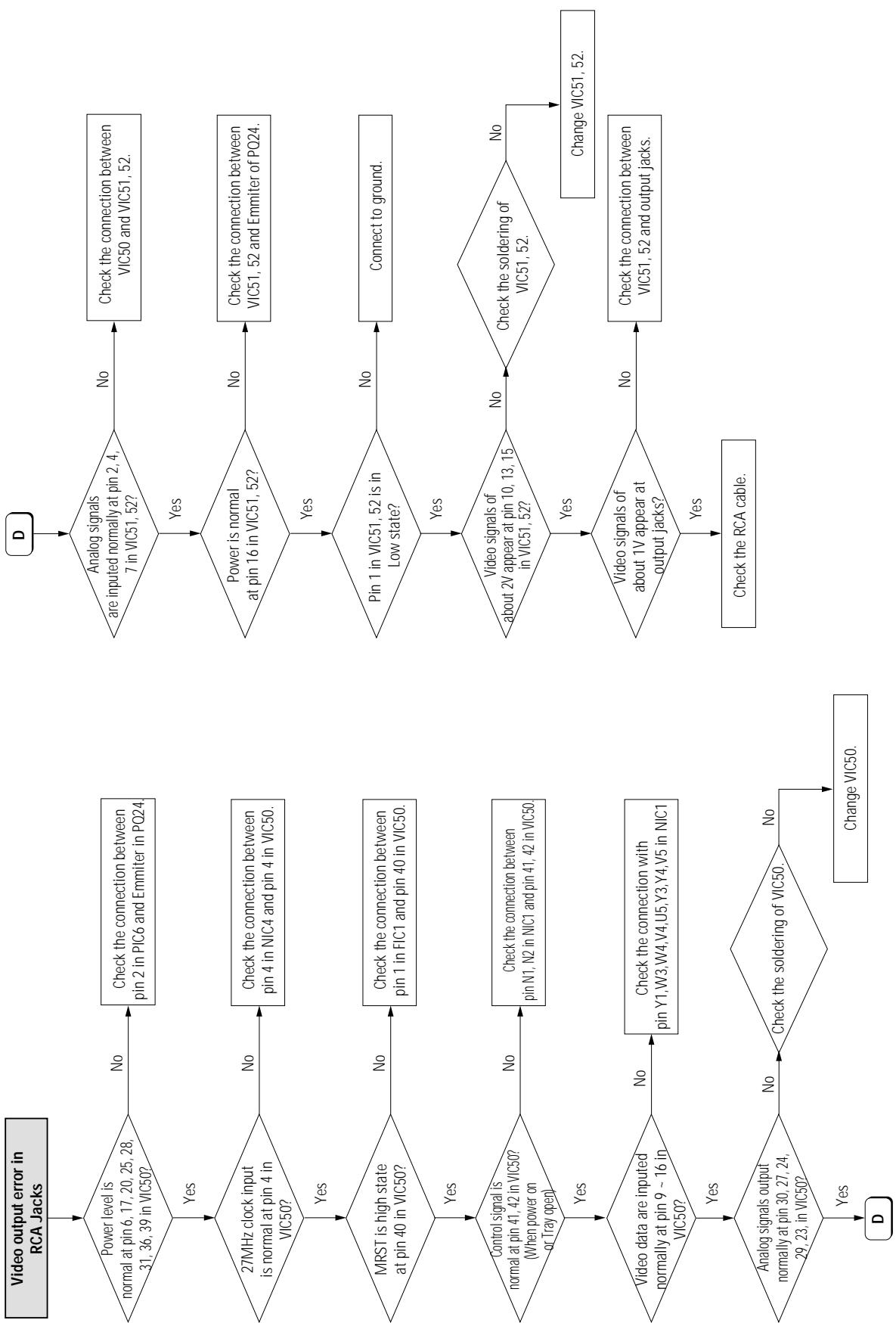








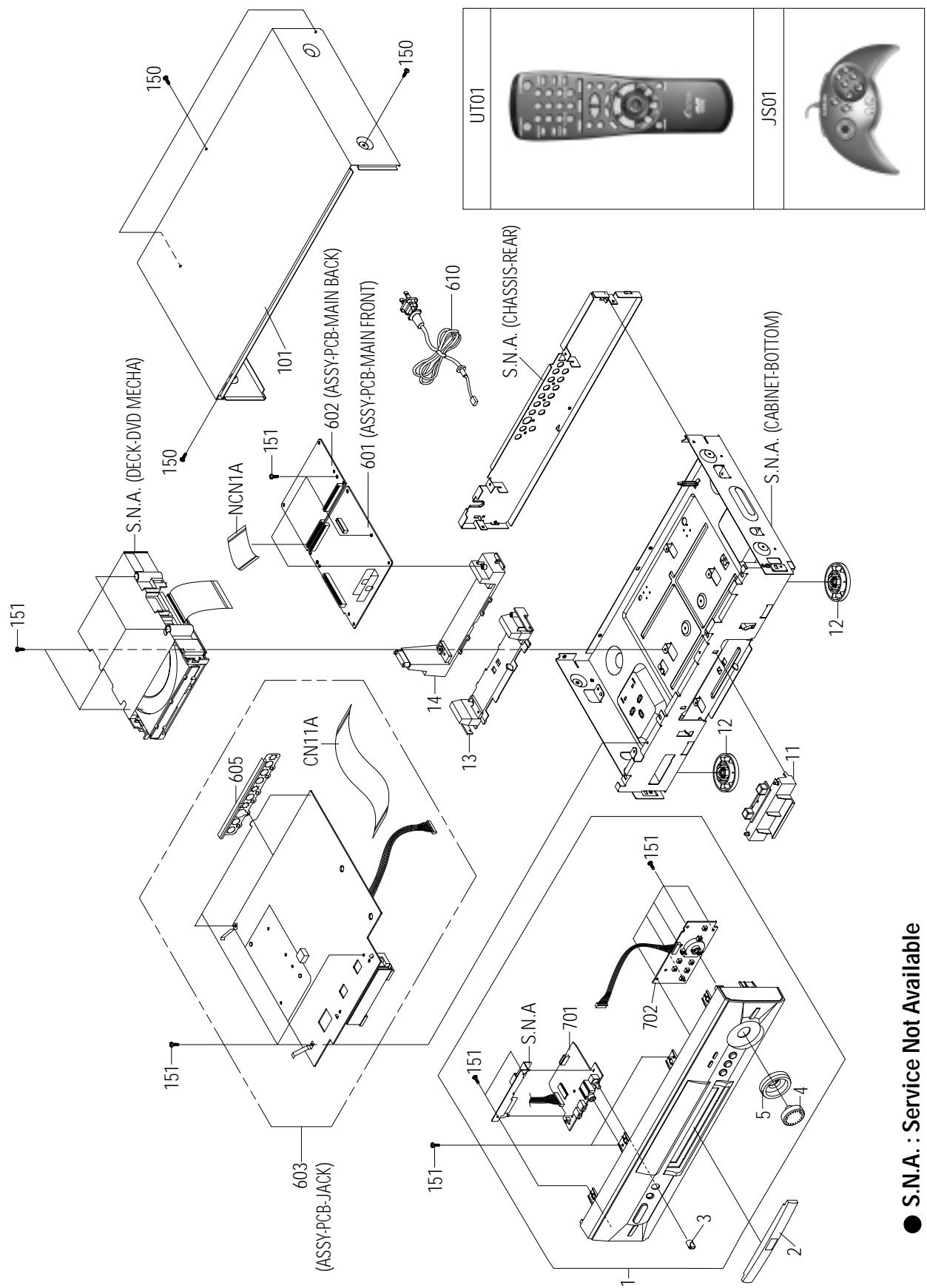




7. Exploded View and Parts List

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7-1 Cabinet Assembly	7-2
7-2 Deck Assembly	7-4

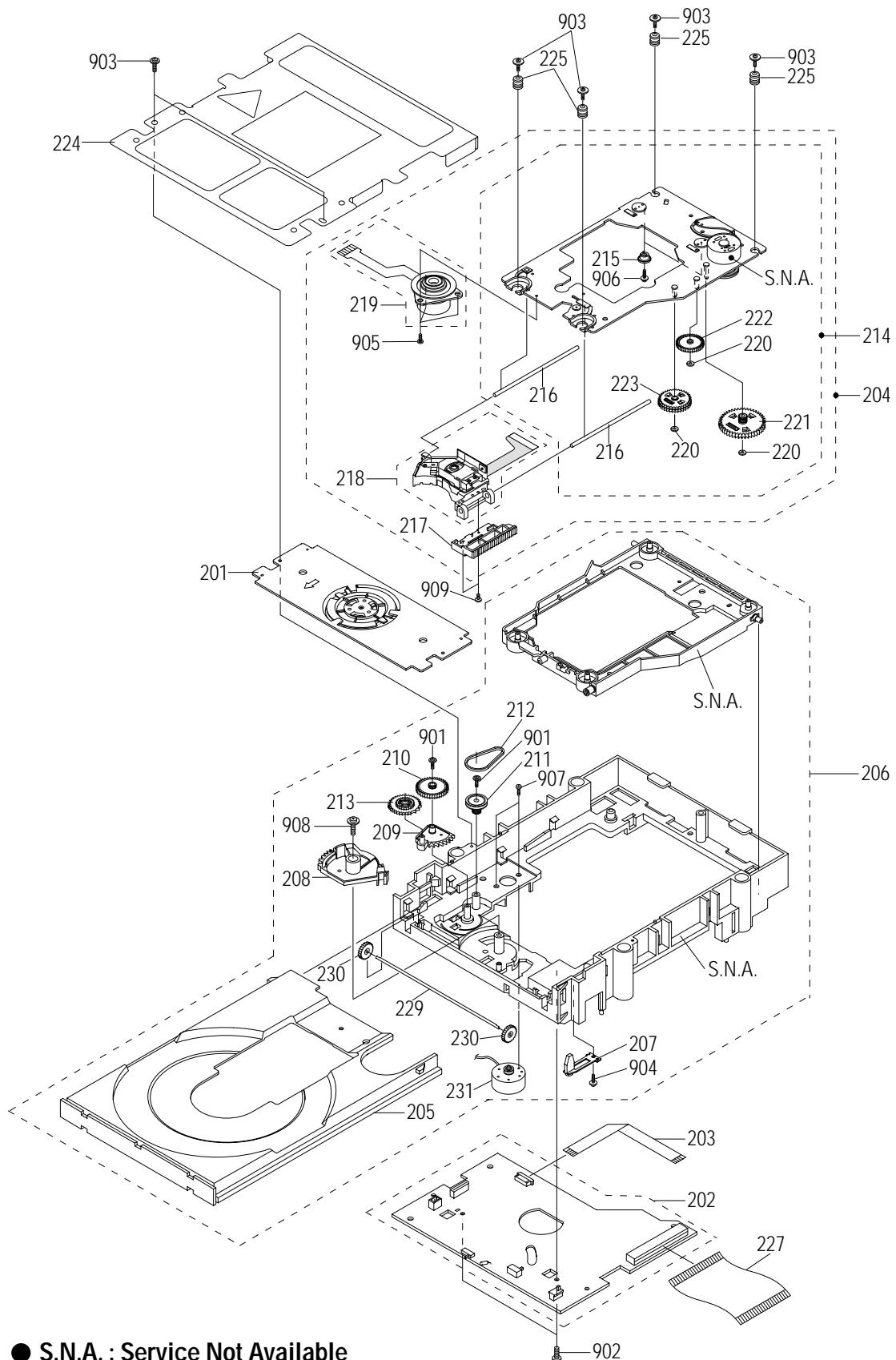
7-1 Cabinet Assembly



● S.N.A. : Service Not Available

Loc. No	Parts No.	Description ; Specification	Remark
1	AH97-00337A	ASSY FRONT CABINET;ASSY,DVD-N2000/XAA,-	
2	AH97-00338A	ASSY-DOOR TRAY;ABS,DVD-N2000/XAA,-	
3	AH64-11306V	KNOB-VOLUME;DVD-N2000/XAA,ABS 94HB,-,G42	
4	AH64-00498A	KNOB-JOG;-,ABS 94HB,-,BLK,-,DVD-N2000/X	
5	AH64-00499A	KNOB-SHUTTLE;-,ABS 94HB,-,BLK,-,DVD-N200	
11	AH61-00194A	HOLDER-DECK A;-,ABS 94HB,-,BLK,-,DVD-909	
12	AH64-80001E	FOOT-FRONT;-,ABS94,HB,T2,SIL,H/STAMP,DVD	
13	AH61-00194B	HOLDER-DECK B;-,ABS 94HB,-,BLK,-,DVD-909	
14	AH61-00194C	HOLDER-DECK C;-,ABS 94HB,-,BLK,-,DVD-909	
101	AH97-00188A	ASSY-CABINET TOP;DVD-709,ABS,XAA	
150	6003-000275	SCREW-TAPTITE;BH,+,B,M3,L10,BLK,SWCH1018	
151	6003-000276	SCREW-TAPTITE;BH,+,B,M3,L10,ZPC(YEL),SWC	
601	AH92-00327A	ASSY-PCB-MAIN FRONT;DVD-N999,MAIN-FRONT	
602	AH92-00328A	ASSY-PCB-MAIN BACK;DVD-N999,MAIN-BACK	
603	AH92-00329A	ASSY-PCB-JACK;DVD-N999,JACK	
605	AH63-00040A	GROUND-REAR;-,PBS,T0.2,-,DVD-909	
610	AH39-00034A	POWER CORD;KJ-10W,EP2,-,1.83M,CONNECTOR,	
701	AH92-00330A	ASSY-PCB-KEY POWER;DVD-N999,KEY-POWER	
702	AH92-00331A	ASSY-PCB-KEY PLAY;DVD-N999,KEY-PLAY	
CN11A	3809-001178	CABLE-FLAT;30V,-20to+80C,163mm,40P,1.25m	
JS01	AH59-00058A	REMOCON-JOY STICK;-, -,10,SNS-2000,SAMS	
NCN1A	3809-001189	CABLE-FLAT;30V,-20to+80C,50mm,30P,1.25mm	
UT01	AH59-10141R	REMOCON-ASS'Y;-, -, -,DVD-N2000,-	

7-2 Deck Assembly



Loc. No	Parts No.	Description ; Specification	Remark
201	AH97-00326A	ASSY-DECK-CLAMPER;DP-3A,SECC+POM,AL T/T	
202	AH92-00035A	ASSY-PCB-DECK;DP-3,-	
203	3809-001125	CABLE-FLAT;30V,80C,140MM,8P,1MM,UL2896	
204	AH7-00449A	ASSY-BRKT DECK;-,DP-3,-	
205	AH66-90054A	TRAY-DVD;DP,ABS,-,BLK,-,DP-1	
206	AH91-60154A	ASSY-DECK HOUSING;DP-3,DVD-909,-	
207	AH66-30087A	LEVER-OPEN SW;DP,KEPITAL,T0.7,L26,F20-03	
208	AH66-20194A	GEAR-CAM CENTER;DP,KEPITAL F20-03,M1.2,Z	
209	AH66-20183A	GEAR-CAM SUB;DP,KEPITAL FT2020,M1.2,Z7,-	
210	AH66-20185A	GEAR-TRAY A;DP,KEPITAL F20-03,M0.4/M0.5,	
211	AH66-10024A	PULLEY-GEAR;DP,KEPITAL F20-03,BLK,DP-1	
212	AH66-60033A	BELT-PULLEY;DP,CR,T1.5,0.08,L82.7,BLK,DP	
213	AH66-20184A	GEAR-TRAY;DP,KEPITAL F20-03,M0.5/M0.6,Z4	
214	AH97-00178A	ASSY-BRKT FEED;DP-3,-,SOH-DP1	
215	BG61-20031A	HOLDER-CAM;-,POM,-,-,-,DDR-4	
216	AH61-50327A	SHAFT-P/U;DP,SUS420J2,OD3,L84.7,S/FINISH	
217	AH66-20228A	RACK-SLIDE;DP,KEPITAL F20-03,-,-,-,DP-	
218	AH30-00005A	PICK UP-ASSY CHANGER	
219	AH97-00327B	ASSY-MOTOR SPINDLE;DP-3A,DP-3A,RSM-2613B	
220	AH60-30020A	WASHER-PLAIN;DP,-,ID3.1,OD6,T0.3,RED COL	
221	AH91-60120A	ASSY-GEAR-FEED-AU/AL;DP-1,DVD-860,-	
222	AH66-20182A	GEAR-FEED B;DP,KEPITAL F20-03,M0.4,Z44,W	
223	AH91-60121A	ASSY-GEAR-FEED-CU/CL;DP-1,DVD-860,-	
224	AH63-30245B	COVER-SHEET;-,T0.5,CLR,-,BLK CARBON,	
225	AH73-00023A	RUBBER-INSULATOR;BUTYL RUBBER,-,DP-3	
227	3809-001123	CABLE-FLAT;30V80C,90MM,40P,1.25MM,UL289	
229	AH61-50323A	SHAFT-SYNCRO;-,sus304,2.1,119,-,-,dvd-90	
230	AH66-22005A	GEAR-SYNCRO-A;KEPITAL F20-03,M0.8,Z9,-,P	
231	AH97-00179A	ASSY-HOUSING MOTOR;DP-3,-,SOH-DP1	
901	AH60-10151A	SCREW-TAP TITE;DP,SPEC6.8 ,PH,+,CP,M2,L	
902	AC60-10051A	SCREW-TAPPING;BH,-,-,M3,L8,FZY	
903	AH60-10143U	SCREW-TAP TITE;-,SWRCH18A,-,PH,-,DP-3,+	
904	AH60-10145A	SCREW-TAP TITE;DPPH,+,SPEC OD5.5 FPTAP	
905	AH60-10147A	SCREW-MACHINE;DP,CH,+,FP,M2,L4,ZPC,SWRCH	
906	AC60-10059A	SCREW-TAPPING;BH,+, -,1.7,X5,ZPC2	
907	AH60-00010A	SCREW-MACHINE-MOTOR;-,+,SWCH18AK,M1.7,L2	
908	AC60-10042A	SCREW-TAPPING;PWH,+, -,M3,L8,-	
909	BG60-10020A	SCREW-SP MOTOR;-,BHW TOOTH,-,-,M1.7,L3,-	

MEMO

8. Electrical Parts List

Loc.No	Part No	Description ; Specification	Remark	Loc.No	Part No	Description ; Specification	Remark
601	AH92-00327A	ASSY-PCB-MAIN FRONT;DVD-N999,MAIN-FRONT		MC10	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,	
CN6	3708-001085	CONNECTOR-FPC/FC/PIC-40P,1.25mm,STRAIGHT		MC11	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,	
CN7	3711-001167	CONNECTOR-HEADER:BOX,9P,1R,2.5mm,STRAIGH		MC12	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,	
CN8	3708-000258	CONNECTOR-FPC/FC/PIC-30P,1.25mm,STRAIGHT		MC13	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,	
DC1	2203-000560	C-CERAMIC,CHIP:220nF,+80-20%,25V,Y5V,TP,		MC14	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,	
DC10	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,		MC16	2203-001656	C-CERAMIC,CHIP:0.47nF,5%,50V,NPO,TP,1608	
DC11	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,		MC18	2203-001656	C-CERAMIC,CHIP:0.47nF,5%,50V,NPO,TP,1608	
DC12	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,		MC2	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,	
DC13	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,		MC20	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,	
DC15	2203-001567	C-CERAMIC,CHIP:0.01nF,0.5pF,50V,NPO,TP,1		MC3	2203-000426	C-CERAMIC,CHIP:0.018nF,5%,50V,NPO,TP,160	
DC16	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,		MC4	2203-000426	C-CERAMIC,CHIP:0.018nF,5%,50V,NPO,TP,160	
DC2	2203-000560	C-CERAMIC,CHIP:220nF,+80-20%,25V,Y5V,TP,		MC5	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,	
DC23	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,		MC6	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,	
DC24	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,		MC7	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,	
DC3	2203-000560	C-CERAMIC,CHIP:220nF,+80-20%,25V,Y5V,TP,		MC8	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,	
DC4	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,		MIC1	0903-001144	IC-MICROCONTROLLER:93CM41,8BIT,QFP,100P,	
DC5	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,		MIC2	0801-002207	IC-CMOS LOGIC:74AC573,LATCH,SOP,20P,300M	
DC6	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,		MIC6	0801-002143	IC-CMOS LOGIC:TC7532F(T5L),OR GATE,SOT-2	
DC7	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,		MIC7	0801-000379	IC-CMOS LOGIC:74HC00,NAND GATE,SOP,14P,1	
DC8	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,		MIC8	3704-000472	SOCKET-IC:32P,DIP,SN,2.54mm	
DC9	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,		MIC8B	1102-000135	IC-EPROM:27C020,256KX8BIT,DIP,32P,600M	
DE1	2401-002144	C-AL:47uF,20%,16V,GP,TP,5x11,5		ML1	3301-000353	CORE-FERRITE BEAD:AB,2.0x1.25x0.9mm,-,-	
DIC1	AH13-10030P	IC-ASIC:-,KS1453,TQFP,128P,DATA PRO. I		MQ1	0504-000128	TR-DIGITAL:-,NPN,200MW,22K/22K,SOT-23,TP	
DIC2	1105-001233	IC-DRAM:416C256,256KX16BIT,SOJ,40P,400MI		MR1	2007-000084	R-CHIP:4.7Kohm,5%,1/16W,DA,TP,1608	
DL1	3301-000353	CORE-FERRITE BEAD:AB,2.0x1.25x0.9mm,-,-		MR10	2007-000084	R-CHIP:4.7Kohm,5%,1/16W,DA,TP,1608	
DR1	2007-000074	R-CHIP:100ohm,5%,1/16W,DA,TP,1608		MR12	2007-000074	R-CHIP:100ohm,5%,1/16W,DA,TP,1608	
DR2	2007-000074	R-CHIP:100ohm,5%,1/16W,DA,TP,1608		MR13	2007-000074	R-CHIP:100ohm,5%,1/16W,DA,TP,1608	
DR3	2007-000074	R-CHIP:100ohm,5%,1/16W,DA,TP,1608		MR14	2007-000074	R-CHIP:100ohm,5%,1/16W,DA,TP,1608	
DR4	2007-000070	R-CHIP:0ohm,5%,1/16W,DA,TP,1608		MR15	2007-000074	R-CHIP:100ohm,5%,1/16W,DA,TP,1608	
DRC1	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,		MR16	2007-000074	R-CHIP:100ohm,5%,1/16W,DA,TP,1608	
DRC10	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,		MR17	2007-000074	R-CHIP:100ohm,5%,1/16W,DA,TP,1608	
DRC11	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,		MR18	2007-000074	R-CHIP:100ohm,5%,1/16W,DA,TP,1608	
DRC2	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,		MR19	2007-000074	R-CHIP:100ohm,5%,1/16W,DA,TP,1608	
DRC3	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,		MR2	2007-000109	R-CHIP:1Mohm,5%,1/16W,DA,TP,1608	
DRC4	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,		MR26	2007-000070	R-CHIP:0ohm,5%,1/16W,DA,TP,1608	
DRC5	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,		MR3	2007-000084	R-CHIP:4.7Kohm,5%,1/16W,DA,TP,1608	
DRC6	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,		MR33	2007-000070	R-CHIP:0ohm,5%,1/16W,DA,TP,1608	
DRC7	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,		MR34	2007-000084	R-CHIP:4.7Kohm,5%,1/16W,DA,TP,1608	
DRC8	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,		MR35	2007-000084	R-CHIP:4.7Kohm,5%,1/16W,DA,TP,1608	
DRC9	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,		MR36	2007-000084	R-CHIP:4.7Kohm,5%,1/16W,DA,TP,1608	
DRE1	2401-002075	C-AL:4.7uF,20%,50V,GP,TP,5x11,5		MR37	2007-000090	R-CHIP:10Kohm,5%,1/16W,DA,TP,1608	
DRE2	2401-002075	C-AL:4.7uF,20%,50V,GP,TP,5x11,5		MR38	2007-000090	R-CHIP:10Kohm,5%,1/16W,DA,TP,1608	
DRE3	2401-002075	C-AL:4.7uF,20%,50V,GP,TP,5x11,5		MR39	2007-000103	R-CHIP:120Kohm,5%,1/16W,DA,TP,1608	
DRE4	2401-002144	C-AL:47uF,20%,16V,GP,TP,5x11,5		MR4	2007-000084	R-CHIP:4.7Kohm,5%,1/16W,DA,TP,1608	
DRE5	2401-002144	C-AL:47uF,20%,16V,GP,TP,5x11,5		MR40	2007-000402	R-CHIP:150ohm,5%,1/16W,DA,TP,1608	
DRE6	2401-002144	C-AL:47uF,20%,16V,GP,TP,5x11,5		MR43	2007-000102	R-CHIP:100Kohm,5%,1/16W,DA,TP,1608	
DRE7	2401-002144	C-AL:47uF,20%,16V,GP,TP,5x11,5		MR5	2007-000084	R-CHIP:4.7Kohm,5%,1/16W,DA,TP,1608	
DRE8	2401-002144	C-AL:47uF,20%,16V,GP,TP,5x11,5		MR50	2007-000074	R-CHIP:100ohm,5%,1/16W,DA,TP,1608	
DRE9	2401-002144	C-AL:47uF,20%,16V,GP,TP,5x11,5		MR51	2007-000074	R-CHIP:100ohm,5%,1/16W,DA,TP,1608	
DRIC1	1003-001130	IC-MOTOR DRIVER:KA3011DT,SO,28P,-,QUAD		MR52	2007-000074	R-CHIP:100ohm,5%,1/16W,DA,TP,1608	
DRIC2	1003-001284	IC-MOTOR DRIVER:FAN8000D,SSOPH,28P,-,-		MR53	2007-000074	R-CHIP:100ohm,5%,1/16W,DA,TP,1608	
DRL1	3301-000353	CORE-FERRITE BEAD:AB,2.0x1.25x0.9mm,-,-		MR54	2007-000074	R-CHIP:100ohm,5%,1/16W,DA,TP,1608	
DRL2	3301-000353	CORE-FERRITE BEAD:AB,2.0x1.25x0.9mm,-,-		MR55	2007-000074	R-CHIP:100ohm,5%,1/16W,DA,TP,1608	
DRR10	2007-000084	R-CHIP:4.7Kohm,5%,1/16W,DA,TP,1608		MR56	2007-000074	R-CHIP:100ohm,5%,1/16W,DA,TP,1608	
DRR11	2007-000087	R-CHIP:6.8Kohm,5%,1/16W,DA,TP,1608		MR57	2007-000074	R-CHIP:100ohm,5%,1/16W,DA,TP,1608	
DRR12	2007-000087	R-CHIP:6.8Kohm,5%,1/16W,DA,TP,1608		MR58	2007-000074	R-CHIP:100ohm,5%,1/16W,DA,TP,1608	
DRR13	2007-000092	R-CHIP:15Kohm,5%,1/16W,DA,TP,1608		MR59	2007-000074	R-CHIP:100ohm,5%,1/16W,DA,TP,1608	
DRR3	2007-000034	R-CHIP:10HM,5%,1/8W,DA,TP,3216		MR6	2007-000084	R-CHIP:4.7Kohm,5%,1/16W,DA,TP,1608	
DRR4	2007-000034	R-CHIP:10HM,5%,1/8W,DA,TP,3216		MR60	2007-000074	R-CHIP:100ohm,5%,1/16W,DA,TP,1608	
DRR7	2007-0000616	R-CHIP:24Kohm,5%,1/16W,DA,TP,1608		MR61	2007-000074	R-CHIP:100ohm,5%,1/16W,DA,TP,1608	
DRR9	2007-000096	R-CHIP:30Kohm,5%,1/16W,DA,TP,1608		MR62	2007-000074	R-CHIP:100ohm,5%,1/16W,DA,TP,1608	
MC1	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,		MR63	2007-000074	R-CHIP:100ohm,5%,1/16W,DA,TP,1608	

Loc.No	Part No	Description : Specification	Remark	Loc.No	Part No	Description : Specification	Remark
MR64	2007-000074	R-CHIP:100ohm,5%,1/16W,DA,TP,1608		RC53	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,	
MR65	2007-000074	R-CHIP:100ohm,5%,1/16W,DA,TP,1608		RC54	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,	
MR66	2007-000074	R-CHIP:100ohm,5%,1/16W,DA,TP,1608		RC55	2203-000888	C-CERAMIC,CHIP:4.7nF,10%,50V,X7R,TP,1608	
MR67	2007-000074	R-CHIP:100ohm,5%,1/16W,DA,TP,1608		RC6	2203-001052	C-CERAMIC,CHIP:0.56nF,10%,50V,X7R,TP,160	
MR68	2007-000074	R-CHIP:100ohm,5%,1/16W,DA,TP,1608		RC7	2203-001640	C-CERAMIC,CHIP:0.39nF,10%,50V,X7R,TP,160	
MR69	2007-000074	R-CHIP:100ohm,5%,1/16W,DA,TP,1608		RC8	2203-000384	C-CERAMIC,CHIP:0.015nF,5%,50V,NP0,TP,160	
MR7	2007-000084	R-CHIP:4.7Kohm,5%,1/16W,DA,TP,1608		RC9	2203-000257	C-CERAMIC,CHIP:10nF,10%,50V,X7R,TP,1608	
MR8	2007-000084	R-CHIP:4.7Kohm,5%,1/16W,DA,TP,1608		RD1	0401-000008	DIODE-SWITCHING:DAN217,80V,100mA,SOT-23,	
MR9	2007-000084	R-CHIP:4.7Kohm,5%,1/16W,DA,TP,1608		RD2	0403-001079	DIODE-ZENER:UDZ3.9B,7%,200MW,SOD-323,TP	
MXTAL1	2801-000199	CRYSTAL-UNIT:20MHz,50ppm,28-AAA,16pF,50o		RD6	0407-000114	DIODE-ARRAY:DAN20K,80V,100mA,CA2-3,SOT-	
PC1	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,		RD7	0407-000114	DIODE-ARRAY:DAN20K,80V,100mA,CA2-3,SOT-	
PC2	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,		RE10	2401-002036	C-AL:1uF,20%,50V,GP,TP,5x11,2.5	
PC3	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,		RE11	2401-000913	C-AL:22uF,20%,16V,GP,TP,5x11,5	
PC4	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,		RE12	2401-002144	C-AL:47uF,20%,16V,GP,TP,5x11,5	
PC5	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,		RE13	2401-000414	C-AL:10uF,20%,16V,GP,TP,4x7,5	
PCB	AH41-00183A	PCB-MAIN:DVD-909/DOM,2L,Main Front End		RE17	2401-002144	C-AL:47uF,20%,16V,GP,TP,5x11,5	
PE1	2401-002165	C-AL:100uF,20%,16V,GP,TP,6.3x7,5		RE2	2401-000414	C-AL:10uF,20%,16V,GP,TP,4x7,5	
PE2	2401-002165	C-AL:100uF,20%,16V,GP,TP,6.3x7,5		RE8	2401-000414	C-AL:10uF,20%,16V,GP,TP,4x7,5	
PE3	2401-002165	C-AL:100uF,20%,16V,GP,TP,6.3x7,5		RE9	2401-002144	C-AL:47uF,20%,16V,GP,TP,5x11,5	
PE4	2401-002165	C-AL:100uF,20%,16V,GP,TP,6.3x7,5		RIC1	AH13-10030Y	IC ASIC:-,KS1461,VQFP,100pin,RF IC	
PE5	2401-002165	C-AL:100uF,20%,16V,GP,TP,6.3x7,5		RIC2	0801-002279	IC-CMOS LOGIC:74VHC4053,MUX,SOP,16P,150M	
RC1	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,		RIC3	1202-000121	IC-VOLTAGE COMP:2903,SOP,8P,150uIL,DUAL	
RC10	2203-000257	C-CERAMIC,CHIP:10nF,10%,50V,X7R,TP,1608		RL2	2703-000398	INDUCTOR-SMD:10uH,10%,3.2x2.5x2.2mm	
RC11	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,		RL3	3301-000353	CORE-FERRITE BEAD:AB,2.0x1.25x0.9mm,--	
RC12	2203-000560	C-CERAMIC,CHIP:220nF,+80-20%,25V,Y5V,TP,		RL4	3301-000353	CORE-FERRITE BEAD:AB,2.0x1.25x0.9mm,--	
RC13	2203-000560	C-CERAMIC,CHIP:220nF,+80-20%,25V,Y5V,TP,		RQ1	0501-000279	TR-SMALL SIGNAL:KSA1182-Y,PNP,150mW,SOT-	
RC14	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,		RQ2	0504-000128	TR-DIGITAL:-,NPN,200MW,22K/22K,SOT-23,TP	
RC15	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,		RR1	2007-000091	R-CHIP:12Kohm,5%,1/16W,DA,TP,1608	
RC16	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,		RR10	2007-001179	R-CHIP:8.2Kohm,5%,1/16W,DA,TP,1608	
RC17	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,		RR11	2007-000512	R-CHIP:2.4Kohm,5%,1/16W,DA,TP,1608	
RC2	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,		RR12	2007-000093	R-CHIP:20Kohm,5%,1/16W,DA,TP,1608	
RC20	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,		RR13	2007-001179	R-CHIP:8.2Kohm,5%,1/16W,DA,TP,1608	
RC21	2203-000384	C-CERAMIC,CHIP:0.015nF,5%,50V,NP0,TP,160		RR14	2007-000091	R-CHIP:12Kohm,5%,1/16W,DA,TP,1608	
RC22	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,		RR15	2007-001179	R-CHIP:8.2Kohm,5%,1/16W,DA,TP,1608	
RC23	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,		RR16	2007-000704	R-CHIP:3.6Kohm,5%,1/16W,DA,TP,1608	
RC24	2203-001697	C-CERAMIC,CHIP:0.082nF,5%,50V,NP0,TP,160		RR17	2007-000092	R-CHIP:15Kohm,5%,1/16W,DA,TP,1608	
RC25	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,		RR18	2007-000102	R-CHIP:10Kohm,5%,1/16W,DA,TP,1608	
RC26	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,		RR19	2007-000102	R-CHIP:100Kohm,5%,1/16W,DA,TP,1608	
RC27	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,		RR2	2007-000091	R-CHIP:12Kohm,5%,1/16W,DA,TP,1608	
RC28	2203-001052	C-CERAMIC,CHIP:0.56nF,10%,50V,X7R,TP,160		RR20	2007-000084	R-CHIP:4.7Kohm,5%,1/16W,DA,TP,1608	
RC29	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,		RR21	2007-000081	R-CHIP:2.7Kohm,5%,1/16W,DA,TP,1608	
RC3	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,		RR22	2007-000102	R-CHIP:100Kohm,5%,1/16W,DA,TP,1608	
RC31	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,		RR23	2007-000102	R-CHIP:100Kohm,5%,1/16W,DA,TP,1608	
RC32	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,		RR24	2007-000078	R-CHIP:1Kohm,5%,1/16W,DA,TP,1608	
RC33	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,		RR25	2007-000091	R-CHIP:12Kohm,5%,1/16W,DA,TP,1608	
RC34	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,		RR26	2007-000090	R-CHIP:10Kohm,5%,1/16W,DA,TP,1608	
RC35	2203-000236	C-CERAMIC,CHIP:0.1nF,5%,50V,NP0,TP,1608		RR27	2007-000090	R-CHIP:10Kohm,5%,1/16W,DA,TP,1608	
RC36	2203-000140	C-CERAMIC,CHIP:1.5nF,10%,50V,X7R,TP,1608		RR28	2007-000078	R-CHIP:1Kohm,5%,1/16W,DA,TP,1608	
RC37	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,		RR29	2007-000078	R-CHIP:1Kohm,5%,1/16W,DA,TP,1608	
RC38	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,		RR3	2007-000091	R-CHIP:12Kohm,5%,1/16W,DA,TP,1608	
RC39	2203-000531	C-CERAMIC,CHIP:2.7nF,10%,50V,X7R,TP,1608		RR30	2007-000091	R-CHIP:12Kohm,5%,1/16W,DA,TP,1608	
RC4	2203-000236	C-CERAMIC,CHIP:0.1nF,5%,50V,NP0,TP,1608		RR31	2007-001179	R-CHIP:8.2Kohm,5%,1/16W,DA,TP,1608	
RC40	2203-000257	C-CERAMIC,CHIP:10nF,10%,50V,X7R,TP,1608		RR32	2007-000102	R-CHIP:100Kohm,5%,1/16W,DA,TP,1608	
RC41	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,		RR32A	2007-001018	R-CHIP:510Kohm,5%,1/16W,DA,TP,1608	
RC42	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,		RR33	2007-000082	R-CHIP:3.3Kohm,5%,1/16W,DA,TP,1608	
RC43	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,		RR34	2007-000090	R-CHIP:10Kohm,5%,1/16W,DA,TP,1608	
RC44	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,		RR35	2007-000092	R-CHIP:15Kohm,5%,1/16W,DA,TP,1608	
RC45	2203-001652	C-CERAMIC,CHIP:470nF,+80-20%,16V,Y5V,TP,		RR36	2007-000102	R-CHIP:10Kohm,5%,1/16W,DA,TP,1608	
RC46	2203-000560	C-CERAMIC,CHIP:220nF,+80-20%,25V,Y5V,TP,		RR37	2007-000102	R-CHIP:100Kohm,5%,1/16W,DA,TP,1608	
RC47	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,		RR38	2007-000102	R-CHIP:100Kohm,5%,1/16W,DA,TP,1608	
RC48	2203-001652	C-CERAMIC,CHIP:470nF,+80-20%,16V,Y5V,TP,		RR39	2007-000102	R-CHIP:100Kohm,5%,1/16W,DA,TP,1608	
RC48A	2203-001652	C-CERAMIC,CHIP:470nF,+80-20%,16V,Y5V,TP,		RR4	2007-000090	R-CHIP:10Kohm,5%,1/16W,DA,TP,1608	
RC5	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,		RR40	2007-000655	R-CHIP:27Kohm,5%,1/16W,DA,TP,1608	
RC50	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,		RR41	2007-000708	R-CHIP:3.9Kohm,1%,1/16W,DA,TP,1608	
RC51	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,		RR42	2007-000090	R-CHIP:10Kohm,5%,1/16W,DA,TP,1608	
RC52	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,		RR43	2007-000090	R-CHIP:10Kohm,5%,1/16W,DA,TP,1608	

Loc.No	Part No	Description ; Specification	Remark	Loc.No	Part No	Description ; Specification	Remark
RR44	2007-000090	R-CHIP:10Kohm,5%,1/16W,DA,TP,1608		SE4	2401-000240	C-AL:100uF,20%,10V,GP,TP,5x11,5	
RR45	2007-000090	R-CHIP:10Kohm,5%,1/16W,DA,TP,1608		SE5	2401-000913	C-AL:22uF,20%,16V,GP,TP,5x11,5	
RR46	2007-000084	R-CHIP:4.7Kohm,5%,1/16W,DA,TP,1608		SIC1	AH13-10030N	IC-ASIC:-KS1452,QFP,80,DSSP IC	
RR47	2007-000102	R-CHIP:100Kohm,5%,1/16W,DA,TP,1608		SIC2	0801-002097	IC-CMOS LOGIC,7SET08,AND GATE,SOP,5P,110	
RR48	2007-000102	R-CHIP:100Kohm,5%,1/16W,DA,TP,1608		SIC3	0801-002097	IC-CMOS LOGIC,7SET08,AND GATE,SOP,5P,110	
RR49	2007-000084	R-CHIP:4.7Kohm,5%,1/16W,DA,TP,1608		SIC8	1202-000121	IC-VOLTAGE COMP:2903,SOP,8P,150MIL,DUAL	
RR5	2007-000127	R-CHIP:9.1Kohm,5%,1/16W,DA,TP,1608		SL3	3301-000353	CORE-FERRITE BEAD:AB,2.0x1.25x0.9mm,-	
RR50	2007-000084	R-CHIP:4.7Kohm,5%,1/16W,DA,TP,1608		SL4	3301-000353	CORE-FERRITE BEAD:AB,2.0x1.25x0.9mm,-	
RR51	2007-000134	R-CHIP:33Kohm,5%,1/16W,DA,TP,1608		SQ1	0504-000128	TR-DIGITAL:-,NPN,200mW,22K/22K,SOT-23,TP	
RR56	2007-000102	R-CHIP:100Kohm,5%,1/16W,DA,TP,1608		SQ2	0504-000156	TR-DIGITAL:DTA124EKA,PNP,200mW,22K-22K	
RR57	2007-000090	R-CHIP:10Kohm,5%,1/16W,DA,TP,1608		SR1	2007-000090	R-CHIP:10Kohm,5%,1/16W,DA,TP,1608	
RR58	2007-000381	R-CHIP:13Kohm,5%,1/16W,DA,TP,1608		SR10	2007-000084	R-CHIP:4.7Kohm,5%,1/16W,DA,TP,1608	
RR59	2007-000082	R-CHIP:3.3Kohm,5%,1/16W,DA,TP,1608		SR11	2007-000107	R-CHIP:470Kohm,5%,1/16W,DA,TP,1608	
RR6	2007-000092	R-CHIP:15Kohm,5%,1/16W,DA,TP,1608		SR12	2007-001235	R-CHIP:910Kohm,5%,1/16W,DA,TP,1608	
RR62	2007-000084	R-CHIP:4.7Kohm,5%,1/16W,DA,TP,1608		SR13	2007-000070	R-CHIP:0ohm,5%,1/16W,DA,TP,1608	
RR63	2007-000090	R-CHIP:10Kohm,5%,1/16W,DA,TP,1608		SR14	2007-000450	R-CHIP:180ohm,5%,1/16W,DA,TP,1608	
RR65	2007-000082	R-CHIP:3.3Kohm,5%,1/16W,DA,TP,1608		SR15	2007-000102	R-CHIP:100Kohm,5%,1/16W,DA,TP,1608	
RR67	2007-000092	R-CHIP:15Kohm,5%,1/16W,DA,TP,1608		SR16	2007-000131	R-CHIP:91Kohm,5%,1/16W,DA,TP,1608	
RR68	2007-000655	R-CHIP:27Kohm,5%,1/16W,DA,TP,1608		SR17	2007-000093	R-CHIP:20Kohm,5%,1/16W,DA,TP,1608	
RR69	2007-000431	R-CHIP:16Kohm,5%,1/16W,DA,TP,1608		SR18	2007-000093	R-CHIP:20Kohm,5%,1/16W,DA,TP,1608	
RR7	2007-000072	R-CHIP:47ohm,5%,1/16W,DA,TP,1608		SR19	2007-000092	R-CHIP:15Kohm,5%,1/16W,DA,TP,1608	
RR70	2007-000134	R-CHIP:33Kohm,5%,1/16W,DA,TP,1608		SR2	2007-000109	R-CHIP:1Mohm,5%,1/16W,DA,TP,1608	
RR72	2007-000084	R-CHIP:4.7Kohm,5%,1/16W,DA,TP,1608		SR20	2007-000092	R-CHIP:15Kohm,5%,1/16W,DA,TP,1608	
RR73	2007-000130	R-CHIP:39Kohm,5%,1/16W,DA,TP,1608		SR21	2007-000070	R-CHIP:0ohm,5%,1/16W,DA,TP,1608	
RR74	2007-000092	R-CHIP:15Kohm,5%,1/16W,DA,TP,1608		SR22	2007-000070	R-CHIP:0ohm,5%,1/16W,DA,TP,1608	
RR75	2007-000082	R-CHIP:3.3Kohm,5%,1/16W,DA,TP,1608		SR23	2007-000130	R-CHIP:39Kohm,5%,1/16W,DA,TP,1608	
RR8	2007-000077	R-CHIP:470ohm,5%,1/16W,DA,TP,1608		SR24	2007-000078	R-CHIP:1Kohm,5%,1/16W,DA,TP,1608	
RR9	2007-000417	R-CHIP:150OHM,5%,1/8W,DA,TP,3216		SR26	2007-000091	R-CHIP:12Kohm,5%,1/16W,DA,TP,1608	
RR99	2007-000070	R-CHIP:0ohm,5%,1/16W,DA,TP,1608		SR3	2007-000090	R-CHIP:10Kohm,5%,1/16W,DA,TP,1608	
SC1	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,		SR31	2007-000080	R-CHIP:2Kohm,5%,1/16W,DA,TP,1608	
SC10	2203-001222	C-CERAMIC,CHIP:820pF,10%,50V,X7R,TP,1608		SR32	2007-000080	R-CHIP:2Kohm,5%,1/16W,DA,TP,1608	
SC11	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,		SR33	2007-000080	R-CHIP:2Kohm,5%,1/16W,DA,TP,1608	
SC14	2203-000491	C-CERAMIC,CHIP:2.2nF,10%,50V,X7R,TP,1608		SR34	2007-00124	R-CHIP:2.2Kohm,5%,1/16W,DA,TP,1608	
SC15	2203-000491	C-CERAMIC,CHIP:2.2nF,10%,50V,X7R,TP,1608		SR35	2007-00124	R-CHIP:2.2Kohm,5%,1/16W,DA,TP,1608	
SC16	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,		SR36	2007-00124	R-CHIP:2.2Kohm,5%,1/16W,DA,TP,1608	
SC17	2203-000560	C-CERAMIC,CHIP:220nF,+80-20%,25V,Y5V,TP,		SR37	2007-00124	R-CHIP:2.2Kohm,5%,1/16W,DA,TP,1608	
SC18	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,		SR38	2007-000092	R-CHIP:15Kohm,5%,1/16W,DA,TP,1608	
SC19	2203-000140	C-CERAMIC,CHIP:1.5nF,10%,50V,X7R,TP,1608		SR39	2007-000458	R-CHIP:18Kohm,5%,1/16W,DA,TP,1608	
SC2	2203-001573	C-CERAMIC,CHIP:0.012nF,5%,50V,NPO,TP,160		SR4	2007-000090	R-CHIP:10Kohm,5%,1/16W,DA,TP,1608	
SC20	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,		SR40	2007-000090	R-CHIP:10Kohm,5%,1/16W,DA,TP,1608	
SC21	2203-001567	C-CERAMIC,CHIP:0.01nF,0.5pF,50V,NPO,TP,1		SR42	2007-000090	R-CHIP:10Kohm,5%,1/16W,DA,TP,1608	
SC26	2203-002398	C-CERAMIC,CHIP:22nF,10%,50V,X7R,TP,1608		SR44	2007-000078	R-CHIP:1Kohm,5%,1/16W,DA,TP,1608	
SC29	2203-000372	C-CERAMIC,CHIP:15nF,10%,50V,X7R,TP,1608,		SR45	2007-000078	R-CHIP:1Kohm,5%,1/16W,DA,TP,1608	
SC3	2203-001573	C-CERAMIC,CHIP:0.012nF,5%,50V,NPO,TP,160		SR46	2007-000078	R-CHIP:1Kohm,5%,1/16W,DA,TP,1608	
SC30	2203-000372	C-CERAMIC,CHIP:15nF,10%,50V,X7R,TP,1608,		SR47	2007-000078	R-CHIP:1Kohm,5%,1/16W,DA,TP,1608	
SC31	2203-000491	C-CERAMIC,CHIP:2.2nF,10%,50V,X7R,TP,1608		SR48	2007-00109	R-CHIP:1Mohm,5%,1/16W,DA,TP,1608	
SC32	2203-000491	C-CERAMIC,CHIP:2.2nF,10%,50V,X7R,TP,1608		SR49	2007-00109	R-CHIP:1Mohm,5%,1/16W,DA,TP,1608	
SC33	2203-000560	C-CERAMIC,CHIP:220nF,+80-20%,25V,Y5V,TP,		SR5	2007-001179	R-CHIP:8.2Kohm,5%,1/16W,DA,TP,1608	
SC34	2203-000405	C-CERAMIC,CHIP:0.18nF,5%,50V,NPO,TP,1608		SR50	2007-000082	R-CHIP:3.3Kohm,5%,1/16W,DA,TP,1608	
SC36	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,		SR51	2007-000082	R-CHIP:3.3Kohm,5%,1/16W,DA,TP,1608	
SC37	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,		SR52	2007-000704	R-CHIP:3.6Kohm,5%,1/16W,DA,TP,1608	
SC38	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,		SR53	2007-00123	R-CHIP:1.5Kohm,5%,1/16W,DA,TP,1608	
SC39	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,		SR54	2007-000077	R-CHIP:470ohm,5%,1/16W,DA,TP,1608	
SC4	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,		SR6	2007-000098	R-CHIP:56Kohm,5%,1/16W,DA,TP,1608	
SC5	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,		SR60	2007-000458	R-CHIP:18Kohm,5%,1/16W,DA,TP,1608	
SC6	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,		SR7	2007-000799	R-CHIP:360ohm,5%,1/16W,DA,TP,1608	
SC64	2203-000626	C-CERAMIC,CHIP:0.022nF,5%,50V,NPO,TP,160		SR8	2007-000070	R-CHIP:0ohm,5%,1/16W,DA,TP,1608	
SC65	2203-000626	C-CERAMIC,CHIP:0.022nF,5%,50V,NPO,TP,160		SR80	2007-000074	R-CHIP:100ohm,5%,1/16W,DA,TP,1608	
SC67	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,		SR81	2007-000074	R-CHIP:100ohm,5%,1/16W,DA,TP,1608	
SC7	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,		SR82	2007-000074	R-CHIP:100ohm,5%,1/16W,DA,TP,1608	
SC9	2203-000560	C-CERAMIC,CHIP:220nF,+80-20%,25V,Y5V,TP,		SR83	2007-000074	R-CHIP:100ohm,5%,1/16W,DA,TP,1608	
SD2	0407-000114	DIODE-ARRAY:DAN202K,80V,100mA,CA2-3,SOT-		SR85	2007-000074	R-CHIP:100ohm,5%,1/16W,DA,TP,1608	
SD3	0407-000114	DIODE-ARRAY:DAN202K,80V,100mA,CA2-3,SOT-		SR9	2007-000084	R-CHIP:4.7Kohm,5%,1/16W,DA,TP,1608	
SE1	2401-002144	C-AL:47uF,20%,16V,GP,TP,5x11,5		SY1	2801-000261	CRYSTAL-UNIT:33.8688MHz,50ppm,28-AAA,12P	
SE2	2401-002144	C-AL:47uF,20%,16V,GP,TP,5x11,5					
SE3	2401-002144	C-AL:47uF,20%,16V,GP,TP,5x11,5					

Loc.No	Part No	Description ; Specification	Remark	Loc.No	Part No	Description ; Specification	Remark
602	AH92-00328A	ASSY-PCB-MAIN BACK:DVD-N999,MAIN-BACK		NC78	2203-000626	C-CERAMIC,CHIP:0.022nF,5%,50V,NP0,TP,160	
NC1	2203-001562	C-CERAMIC,CHIP:10nF,+80-20%,50V,Y5V,TP,2		NC80	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,	
NC13	2203-001562	C-CERAMIC,CHIP:10nF,+80-20%,50V,Y5V,TP,2		NC81	2203-000257	C-CERAMIC,CHIP:10nF,10%,50V,X7R,TP,1608	
NC14	2203-001562	C-CERAMIC,CHIP:10nF,+80-20%,50V,Y5V,TP,2		NC89	2203-000818	C-CERAMIC,CHIP:0.033nF,5%,50V,NP0,TP,201	
NC15	2203-001562	C-CERAMIC,CHIP:10nF,+80-20%,50V,Y5V,TP,2		NC90	2203-001636	C-CERAMIC,CHIP:0.033nF,5%,50V,NP0,TP,160	
NC16	2203-001562	C-CERAMIC,CHIP:10nF,+80-20%,50V,Y5V,TP,2		NC91	2203-001636	C-CERAMIC,CHIP:0.033nF,5%,50V,NP0,TP,160	
NC19	2203-001562	C-CERAMIC,CHIP:10nF,+80-20%,50V,Y5V,TP,2		NC92	2203-001636	C-CERAMIC,CHIP:0.033nF,5%,50V,NP0,TP,160	
NC2	2203-001562	C-CERAMIC,CHIP:10nF,+80-20%,50V,Y5V,TP,2		NC94	2203-001636	C-CERAMIC,CHIP:0.033nF,5%,50V,NP0,TP,160	
NC22	2203-001562	C-CERAMIC,CHIP:10nF,+80-20%,50V,Y5V,TP,2		NE1	2402-000165	C-AL,SMD:47uF,20%,6.3V,GPT,TP,5.3x5.3x5.	
NC23	2203-001562	C-CERAMIC,CHIP:10nF,+80-20%,50V,Y5V,TP,2		NE51	2402-000165	C-AL,SMD:47uF,20%,6.3V,GPT,TP,5.3x5.3x5.	
NC24	2203-001562	C-CERAMIC,CHIP:10nF,+80-20%,50V,Y5V,TP,2		NE52	2402-000165	C-AL,SMD:47uF,20%,6.3V,GPT,TP,5.3x5.3x5.	
NC26	2203-001562	C-CERAMIC,CHIP:10nF,+80-20%,50V,Y5V,TP,2		NIC1	1204-001617	IC-DECODER:MMP-L3BZP,BGA,356P,1063MIL,PL	
NC27	2203-000192	C-CERAMIC,CHIP:100nF,+80-20%,50V,Y5V,TP,		NIC10	0801-001127	IC-CMOS LOGIC:74VHC574,FLIP-FLOP,SOP,20P	
NC28	2203-000192	C-CERAMIC,CHIP:100nF,+80-20%,50V,Y5V,TP,		NIC12	1105-001272	IC-DRAM:K4S641622C-TC80,2Mx16x2Bit,TSO	
NC29	2203-000440	C-CERAMIC,CHIP:1nF,10%,50V,X7R,TP,1608,-		NIC13	1209-001283	IC-PLL:PLL1700E,SSOP,20P,7MIL,PLASTIC	
NC3	2203-001562	C-CERAMIC,CHIP:10nF,+80-20%,50V,Y5V,TP,2		NIC14	0801-002095	IC-CMOS LOGIC:74LCX245,BUFFERS,TSSOP,20P	
NC30	2203-000274	C-CERAMIC,CHIP:0.01nF,0.25pF,50V,NP0,TP,		NIC15	1203-001828	IC-VOLTAGE REGULATOR:07VZ012,-,5P,-,PLAS	
NC31	2203-000274	C-CERAMIC,CHIP:0.01nF,0.25pF,50V,NP0,TP,		NIC16	0801-002095	IC-CMOS LOGIC:74LCX245,BUFFERS,TSSOP,20P	
NC33	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,		NIC17	0801-002476	IC-CMOS LOGIC:7WZ16,BUFFER,SC70,6P,49MIL	
NC34	2203-000236	C-CERAMIC,CHIP:0.1nF,5%,50V,NP0,TP,1608		NIC18	0801-002237	IC-CMOS LOGIC:74HC04,INVERTER GATE,SOP,5	
NC35	2203-000192	C-CERAMIC,CHIP:100nF,+80-20%,50V,Y5V,TP,		NIC19	0801-002097	IC-CMOS LOGIC:7SET08,AND GATE,SOP,5P,110	
NC36	2203-000192	C-CERAMIC,CHIP:100nF,+80-20%,50V,Y5V,TP,		NIC2	1105-001221	IC-DRAM:K4E641612C-TC50,4Mx16Bit,TSOP,	
NC37	2203-000192	C-CERAMIC,CHIP:100nF,+80-20%,50V,Y5V,TP,		NIC3	1105-001221	IC-DRAM:K4E641612C-TC50,4Mx16Bit,TSOP,	
NC38	2203-000192	C-CERAMIC,CHIP:100nF,+80-20%,50V,Y5V,TP,		NIC4	AH14-10004R	IC:M74HCU04,SOP,TAPE 14P	
NC39	2203-001562	C-CERAMIC,CHIP:10nF,+80-20%,50V,Y5V,TP,2		NIC5	1103-001133	IC-EEPROM:24C020,256x8BIT,SOP,8P,150MIL,	
NC4	2203-001562	C-CERAMIC,CHIP:10nF,+80-20%,50V,Y5V,TP,2		NIC6S	0801-002237	IC-CMOS LOGIC:74HC04,INVERTER GATE,SOP,5	
NC40	2203-001562	C-CERAMIC,CHIP:10nF,+80-20%,50V,Y5V,TP,2		NIC7	1301-001470	IC-GATE ARRAY:999,PLCC,44P,-,3.3V,-,	
NC41	2203-001562	C-CERAMIC,CHIP:10nF,+80-20%,50V,Y5V,TP,2		NIC8	0801-001127	IC-CMOS LOGIC:74VHC574,FLIP-FLOP,SOP,20P	
NC42	2203-001562	C-CERAMIC,CHIP:10nF,+80-20%,50V,Y5V,TP,2		NIC9	0801-001127	IC-CMOS LOGIC:74VHC574,FLIP-FLOP,SOP,20P	
NC43	2203-001562	C-CERAMIC,CHIP:10nF,+80-20%,50V,Y5V,TP,2		NL1	3301-000325	CORE-FERRITE BEAD:AB,3.2x2.5x1.3mm,-,	
NC44	2203-000257	C-CERAMIC,CHIP:10nF,10%,50V,X7R,TP,1608		NL10	3301-000353	CORE-FERRITE BEAD:AB,2.0x1.25x0.9mm,-,	
NC45	2203-000257	C-CERAMIC,CHIP:10nF,10%,50V,X7R,TP,1608		NL11	3301-000353	CORE-FERRITE BEAD:AB,2.0x1.25x0.9mm,-,	
NC46	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,		NL12	3301-001051	CORE-FERRITE BEAD:AC,1.6x0.8x0.8mm,-,	
NC47	2203-000192	C-CERAMIC,CHIP:100nF,+80-20%,50V,Y5V,TP,		NL13	3301-001051	CORE-FERRITE BEAD:AC,1.6x0.8x0.8mm,-,	
NC48	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,		NL14	3301-001051	CORE-FERRITE BEAD:AC,1.6x0.8x0.8mm,-,	
NC49	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,		NL2	3301-000353	CORE-FERRITE BEAD:AB,2.0x1.25x0.9mm,-,	
NC5	2203-001562	C-CERAMIC,CHIP:10nF,+80-20%,50V,Y5V,TP,2		NL3	3301-000353	CORE-FERRITE BEAD:AB,2.0x1.25x0.9mm,-,	
NC50	2203-000236	C-CERAMIC,CHIP:0.1nF,5%,50V,NP0,TP,1608		NL5	3301-000353	CORE-FERRITE BEAD:AB,2.0x1.25x0.9mm,-,	
NC51	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,		NL51	3301-000353	CORE-FERRITE BEAD:AB,2.0x1.25x0.9mm,-,	
NC52	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,		NL52	3301-000353	CORE-FERRITE BEAD:AB,2.0x1.25x0.9mm,-,	
NC53	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,		NL6	3301-000353	CORE-FERRITE BEAD:AB,2.0x1.25x0.9mm,-,	
NC54	2203-000236	C-CERAMIC,CHIP:0.1nF,5%,50V,NP0,TP,1608		NL7	3301-000353	CORE-FERRITE BEAD:AB,2.0x1.25x0.9mm,-,	
NC55	2203-000192	C-CERAMIC,CHIP:100nF,+80-20%,50V,Y5V,TP,		NL71	3301-000353	CORE-FERRITE BEAD:AB,2.0x1.25x0.9mm,-,	
NC56	2203-000192	C-CERAMIC,CHIP:100nF,+80-20%,50V,Y5V,TP,		NL72	3301-000353	CORE-FERRITE BEAD:AB,2.0x1.25x0.9mm,-,	
NC57	2203-000192	C-CERAMIC,CHIP:100nF,+80-20%,50V,Y5V,TP,		NL73	3301-000353	CORE-FERRITE BEAD:AB,2.0x1.25x0.9mm,-,	
NC58	2203-000236	C-CERAMIC,CHIP:0.1nF,5%,50V,NP0,TP,1608		NL74	3301-000353	CORE-FERRITE BEAD:AB,2.0x1.25x0.9mm,-,	
NC59	2203-000236	C-CERAMIC,CHIP:0.1nF,5%,50V,NP0,TP,1608		NL75	3301-000353	CORE-FERRITE BEAD:AB,2.0x1.25x0.9mm,-,	
NC60	2203-000236	C-CERAMIC,CHIP:0.1nF,5%,50V,NP0,TP,1608		NL76	3301-000353	CORE-FERRITE BEAD:AB,2.0x1.25x0.9mm,-,	
NC61	2203-000192	C-CERAMIC,CHIP:100nF,+80-20%,50V,Y5V,TP,		NL77	3301-000353	CORE-FERRITE BEAD:AB,2.0x1.25x0.9mm,-,	
NC62	2203-000192	C-CERAMIC,CHIP:100nF,+80-20%,50V,Y5V,TP,		NL78	3301-000353	CORE-FERRITE BEAD:AB,2.0x1.25x0.9mm,-,	
NC63	2203-000192	C-CERAMIC,CHIP:100nF,+80-20%,50V,Y5V,TP,		NL8	3301-000353	CORE-FERRITE BEAD:AB,2.0x1.25x0.9mm,-,	
NC64	2203-000192	C-CERAMIC,CHIP:100nF,+80-20%,50V,Y5V,TP,		NL89	3301-000353	CORE-FERRITE BEAD:AB,2.0x1.25x0.9mm,-,	
NC65	2203-000192	C-CERAMIC,CHIP:100nF,+80-20%,50V,Y5V,TP,		NL9	3301-000353	CORE-FERRITE BEAD:AB,2.0x1.25x0.9mm,-,	
NC66	2203-000192	C-CERAMIC,CHIP:100nF,+80-20%,50V,Y5V,TP,		NL90	3301-000353	CORE-FERRITE BEAD:AB,2.0x1.25x0.9mm,-,	
NC67	2203-000192	C-CERAMIC,CHIP:100nF,+80-20%,50V,Y5V,TP,		NL91	3301-000353	CORE-FERRITE BEAD:AB,2.0x1.25x0.9mm,-,	
NC68	2203-000192	C-CERAMIC,CHIP:100nF,+80-20%,50V,Y5V,TP,		NL92	3301-000353	CORE-FERRITE BEAD:AB,2.0x1.25x0.9mm,-,	
NC69	2203-000192	C-CERAMIC,CHIP:100nF,+80-20%,50V,Y5V,TP,		NL93	3301-000353	CORE-FERRITE BEAD:AB,2.0x1.25x0.9mm,-,	
NC7	2203-001562	C-CERAMIC,CHIP:10nF,+80-20%,50V,Y5V,TP,2		NL94	3301-000353	CORE-FERRITE BEAD:AB,2.0x1.25x0.9mm,-,	
NC70	2203-000192	C-CERAMIC,CHIP:100nF,+80-20%,50V,Y5V,TP,		NL95	3301-000353	CORE-FERRITE BEAD:AB,2.0x1.25x0.9mm,-,	
NC71	2203-000626	C-CERAMIC,CHIP:0.022nF,5%,50V,NP0,TP,160		NL96	3301-000353	CORE-FERRITE BEAD:AB,2.0x1.25x0.9mm,-,	
NC72	2203-000626	C-CERAMIC,CHIP:0.022nF,5%,50V,NP0,TP,160		NPC1	2203-000192	C-CERAMIC,CHIP:100nF,+80-20%,50V,Y5V,TP,	
NC73	2203-000626	C-CERAMIC,CHIP:0.022nF,5%,50V,NP0,TP,160		NPC2	2203-000192	C-CERAMIC,CHIP:100nF,+80-20%,50V,Y5V,TP,	
NC74	2203-000626	C-CERAMIC,CHIP:0.022nF,5%,50V,NP0,TP,160		NPC3	2203-000192	C-CERAMIC,CHIP:100nF,+80-20%,50V,Y5V,TP,	
NC75	2203-000626	C-CERAMIC,CHIP:0.022nF,5%,50V,NP0,TP,160		NPC4	2203-000189	C-CERAMIC,CHIP:100nF,+80-20%,25V,Y5V,TP,	
NC76	2203-000626	C-CERAMIC,CHIP:0.022nF,5%,50V,NP0,TP,160		NPE1	2402-000202	C-AL,SMD:100uF,20%,10V,WT,TP,6.6x6.6mm,	
NC77	2203-000626	C-CERAMIC,CHIP:0.022nF,5%,50V,NP0,TP,160		NPE2	2402-000202	C-AL,SMD:100uF,20%,10V,WT,TP,6.6x6.6mm,	

Loc.No	Part No	Description ; Specification	Remark	Loc.No	Part No	Description ; Specification	Remark
NPE3	2402-000165	C-AL,SMD:47uF,20%,6.3V,GP,TP,5.3x5.3x5.		NR89	2007-000290	R-CHIP:100OHM,5%,1/10W,DA,TP,2012	
NPL1	3301-000325	CORE-FERRITE BEAD:AB,3.2x2.5x1.3mm,-,-		NR9	2007-000090	R-CHIP:10Kohm,5%,1/16W,DA,TP,1608	
NPL2	3301-000325	CORE-FERRITE BEAD:AB,3.2x2.5x1.3mm,-,-		NR90	2007-000290	R-CHIP:100OHM,5%,1/10W,DA,TP,2012	
NPL4	3301-000325	CORE-FERRITE BEAD:AB,3.2x2.5x1.3mm,-,-		NR91	2007-000290	R-CHIP:100OHM,5%,1/10W,DA,TP,2012	
NR1	2007-000090	R-CHIP:10Kohm,5%,1/16W,DA,TP,1608		NR92	2007-000290	R-CHIP:100OHM,5%,1/10W,DA,TP,2012	
NR10	2007-000300	R-CHIP:10KOHM,5%,1/10W,DA,TP,2012		NR93	2007-000290	R-CHIP:100OHM,5%,1/10W,DA,TP,2012	
NR100	2007-000070	R-CHIP:0ohm,5%,1/16W,DA,TP,1608		NR94	2007-000290	R-CHIP:100OHM,5%,1/10W,DA,TP,2012	
NR101	2007-000074	R-CHIP:100ohm,5%,1/16W,DA,TP,1608		NR95	2007-000290	R-CHIP:100OHM,5%,1/10W,DA,TP,2012	
NR11	2007-000090	R-CHIP:10Kohm,5%,1/16W,DA,TP,1608		NR96	2007-000029	R-CHIP:00HM,5%,1/10W,DA,TP,2012	
NR12	2007-000300	R-CHIP:10KOHM,5%,1/10W,DA,TP,2012		NR97	2007-000074	R-CHIP:100ohm,5%,1/16W,DA,TP,1608	
NR13	2007-000090	R-CHIP:10Kohm,5%,1/16W,DA,TP,1608		NR98	2007-000308	R-CHIP:10OHM,5%,1/10W,DA,TP,2012	
NR14	2007-000090	R-CHIP:10Kohm,5%,1/16W,DA,TP,1608		NRA1	2011-000816	R-NETWORK:100ohm,5%,63mWL,CHIP,8P,TP	
NR15	2007-000090	R-CHIP:10Kohm,5%,1/16W,DA,TP,1608		NRA10	2011-000816	R-NETWORK:100ohm,5%,63mWL,CHIP,8P,TP	
NR16	2007-000300	R-CHIP:10KOHM,5%,1/10W,DA,TP,2012		NRA11	2011-000816	R-NETWORK:100ohm,5%,63mWL,CHIP,8P,TP	
NR17	2007-000090	R-CHIP:10Kohm,5%,1/16W,DA,TP,1608		NRA12	2011-000816	R-NETWORK:100ohm,5%,63mWL,CHIP,8P,TP	
NR18	2007-000090	R-CHIP:10Kohm,5%,1/16W,DA,TP,1608		NRA13	2011-000816	R-NETWORK:100ohm,5%,63mWL,CHIP,8P,TP	
NR19	2007-000090	R-CHIP:10Kohm,5%,1/16W,DA,TP,1608		NRA14	2011-000816	R-NETWORK:100ohm,5%,63mWL,CHIP,8P,TP	
NR2	2007-000090	R-CHIP:10Kohm,5%,1/16W,DA,TP,1608		NRA15	2011-000816	R-NETWORK:100ohm,5%,63mWL,CHIP,8P,TP	
NR20	2007-000090	R-CHIP:10Kohm,5%,1/16W,DA,TP,1608		NRA16	2011-000816	R-NETWORK:100ohm,5%,63mWL,CHIP,8P,TP	
NR21	2007-000090	R-CHIP:10Kohm,5%,1/16W,DA,TP,1608		NRA17	2011-000816	R-NETWORK:100ohm,5%,63mWL,CHIP,8P,TP	
NR22	2007-000090	R-CHIP:10Kohm,5%,1/16W,DA,TP,1608		NRA18	2011-000816	R-NETWORK:100ohm,5%,63mWL,CHIP,8P,TP	
NR24	2007-000090	R-CHIP:10Kohm,5%,1/16W,DA,TP,1608		NRA19	2011-000816	R-NETWORK:100ohm,5%,63mWL,CHIP,8P,TP	
NR25	2007-000113	R-CHIP:33ohm,5%,1/16W,DA,TP,1608		NRA2	2011-000816	R-NETWORK:100ohm,5%,63mWL,CHIP,8P,TP	
NR26	2007-000078	R-CHIP:1Kohm,5%,1/16W,DA,TP,1608		NRA20	2011-000816	R-NETWORK:100ohm,5%,63mWL,CHIP,8P,TP	
NR27	2007-000078	R-CHIP:1Kohm,5%,1/16W,DA,TP,1608		NRA3	2011-000816	R-NETWORK:100ohm,5%,63mWL,CHIP,8P,TP	
NR28	2007-000300	R-CHIP:10KOHM,5%,1/10W,DA,TP,2012		NRA4	2011-000816	R-NETWORK:100ohm,5%,63mWL,CHIP,8P,TP	
NR29	2007-000468	R-CHIP:1KOHM,5%,1/10W,DA,TP,2012		NRA5	2011-000816	R-NETWORK:100ohm,5%,63mWL,CHIP,8P,TP	
NR3	2007-000090	R-CHIP:10Kohm,5%,1/16W,DA,TP,1608		NRA6	2011-000816	R-NETWORK:100ohm,5%,63mWL,CHIP,8P,TP	
NR30	2007-000074	R-CHIP:100ohm,5%,1/16W,DA,TP,1608		NRA7	2011-000816	R-NETWORK:100ohm,5%,63mWL,CHIP,8P,TP	
NR32	2007-000075	R-CHIP:220ohm,5%,1/16W,DA,TP,1608		NRA8	2011-000816	R-NETWORK:100ohm,5%,63mWL,CHIP,8P,TP	
NR33	2007-000113	R-CHIP:33ohm,5%,1/16W,DA,TP,1608		NRA9	2011-000816	R-NETWORK:100ohm,5%,63mWL,CHIP,8P,TP	
NR34	2007-000090	R-CHIP:10Kohm,5%,1/16W,DA,TP,1608		PCB	AH41-00193A	PCB-MAIN BACKEND-DVD-909/DOM,-,-,EPOXY,-	
NR35	2007-000074	R-CHIP:100ohm,5%,1/16W,DA,TP,1608		NCN1	3708-000258	CONNECTOR-FPC/FC/PIC,30P,1.25mm,STRAIGHT	
NR36	2007-000074	R-CHIP:100ohm,5%,1/16W,DA,TP,1608		NCN2	3708-001085	CONNECTOR-FPC/FC/PIC,40P,1.25mm,STRAIGHT	
NR37	2007-000074	R-CHIP:100ohm,5%,1/16W,DA,TP,1608		NIC11	3704-000279	SOCKET-IC:42P,DIP,SN,2.54mm	
NR38	2007-000071	R-CHIP:220hm,5%,1/16W,DA,TP,1608		NIC11B	1102-001101	IC-EPROM:27C160,2Mx8Bit,FDIP,42P,600MIL	
NR39	2007-000593	R-CHIP:220HM,5%,1/10W,DA,TP,2012		NY1	2801-003934	CRYSTAL-UNIT,108MHz,20ppm,28-AAM,S-6khz	
NR4	2007-000090	R-CHIP:10Kohm,5%,1/16W,DA,TP,1608		603	AH92-00329A	ASSY-PCB-JACK;DVD-N999,JACK	
NR40	2007-000074	R-CHIP:100ohm,5%,1/16W,DA,TP,1608		AC16	2203-000192	C-CERAMIC,CHIP:100nF,+80-20%,50V,Y5V,TP,	
NR41	2007-000078	R-CHIP:1Kohm,5%,1/16W,DA,TP,1608		AC18	2203-000192	C-CERAMIC,CHIP:100nF,+80-20%,50V,Y5V,TP,	
NR43	2007-000290	R-CHIP:100OHM,5%,1/10W,DA,TP,2012		AC19	2203-000444	C-CERAMIC,CHIP:1nF,10%,50V,X7R,TP,2012,-	
NR44	2007-000074	R-CHIP:100ohm,5%,1/16W,DA,TP,1608		AC20	2203-000595	C-CERAMIC,CHIP:0.22nF,5%,50V,NPO,TP,2012	
NR45	2007-000074	R-CHIP:100ohm,5%,1/16W,DA,TP,1608		AC21	2203-000595	C-CERAMIC,CHIP:0.22nF,5%,50V,NPO,TP,2012	
NR46	2007-000290	R-CHIP:100OHM,5%,1/10W,DA,TP,2012		AC22	2203-000192	C-CERAMIC,CHIP:100nF,+80-20%,50V,Y5V,TP,	
NR47	2007-000290	R-CHIP:100OHM,5%,1/10W,DA,TP,2012		AC23	2203-000192	C-CERAMIC,CHIP:100nF,+80-20%,50V,Y5V,TP,	
NR48	2007-000290	R-CHIP:100OHM,5%,1/10W,DA,TP,2012		AC25	2203-000444	C-CERAMIC,CHIP:1nF,10%,50V,X7R,TP,2012,-	
NR5	2007-000090	R-CHIP:10Kohm,5%,1/16W,DA,TP,1608		AC26	2202-000806	C-CERAMIC,MLC-AXIAL:220pF,10%,50V,Y5V,TP	
NR6	2007-000090	R-CHIP:10Kohm,5%,1/16W,DA,TP,1608		AC27	2203-000595	C-CERAMIC,CHIP:0.22nF,5%,50V,NPO,TP,2012	
NR7	2007-000090	R-CHIP:10Kohm,5%,1/16W,DA,TP,1608		AC29	2203-000192	C-CERAMIC,CHIP:100nF,+80-20%,50V,Y5V,TP,	
NR71	2007-000572	R-CHIP:220OHM,5%,1/10W,DA,TP,2012		AC31	2202-002037	C-CERAMIC,MLC-AXIAL:100nF,80-20%,50V,Y5V	
NR72	2007-000572	R-CHIP:220OHM,5%,1/10W,DA,TP,2012		AC32	2203-000444	C-CERAMIC,CHIP:1nF,10%,50V,X7R,TP,2012,-	
NR73	2007-000572	R-CHIP:220OHM,5%,1/10W,DA,TP,2012		AC33	2203-000595	C-CERAMIC,CHIP:0.22nF,5%,50V,NPO,TP,2012	
NR74	2007-000572	R-CHIP:220OHM,5%,1/10W,DA,TP,2012		AC34	2203-000595	C-CERAMIC,CHIP:0.22nF,5%,50V,NPO,TP,2012	
NR75	2007-000572	R-CHIP:220OHM,5%,1/10W,DA,TP,2012		AC35	2203-000192	C-CERAMIC,CHIP:100nF,+80-20%,50V,Y5V,TP,	
NR76	2007-000572	R-CHIP:220OHM,5%,1/10W,DA,TP,2012		AC36	2203-000192	C-CERAMIC,CHIP:100nF,+80-20%,50V,Y5V,TP,	
NR77	2007-000572	R-CHIP:220OHM,5%,1/10W,DA,TP,2012		AC38	2203-000444	C-CERAMIC,CHIP:1nF,10%,50V,X7R,TP,2012,-	
NR78	2007-000572	R-CHIP:220OHM,5%,1/10W,DA,TP,2012		AC39	2202-000806	C-CERAMIC,MLC-AXIAL:220pF,10%,50V,Y5V,TP	
NR79	2007-000300	R-CHIP:10KOHM,5%,1/10W,DA,TP,2012		AC4	2202-002037	C-CERAMIC,MLC-AXIAL:100nF,80-20%,50V,Y5V	
NR8	2007-000300	R-CHIP:10KOHM,5%,1/10W,DA,TP,2012		AC40	2203-000595	C-CERAMIC,CHIP:0.22nF,5%,50V,NPO,TP,2012	
NR80	2007-000300	R-CHIP:10KOHM,5%,1/10W,DA,TP,2012		AC42	2203-000192	C-CERAMIC,CHIP:100nF,+80-20%,50V,Y5V,TP,	
NR81	2007-000300	R-CHIP:10KOHM,5%,1/10W,DA,TP,2012		AC44	2202-002037	C-CERAMIC,MLC-AXIAL:100nF,80-20%,50V,Y5V	
NR82	2007-000300	R-CHIP:10KOHM,5%,1/10W,DA,TP,2012		AC45	2203-000444	C-CERAMIC,CHIP:1nF,10%,50V,X7R,TP,2012,-	
NR83	2007-000300	R-CHIP:10KOHM,5%,1/10W,DA,TP,2012		AC46	2203-000595	C-CERAMIC,CHIP:0.22nF,5%,50V,NPO,TP,2012	
NR84	2007-000300	R-CHIP:10KOHM,5%,1/10W,DA,TP,2012		AC47	2203-000595	C-CERAMIC,CHIP:0.22nF,5%,50V,NPO,TP,2012	
NR85	2007-000300	R-CHIP:10KOHM,5%,1/10W,DA,TP,2012		AC48	2203-000192	C-CERAMIC,CHIP:100nF,+80-20%,50V,Y5V,TP,	

Loc.No	Part No	Description ; Specification	Remark	Loc.No	Part No	Description ; Specification	Remark
AC49	2203-000192	C-CERAMIC,CHIP:100nF,+80-20%,50V,Y5V,TP,		AIC4	1002-001129	IC-D/A CONVERTER:AK4324VF,24BIT,VSOP,24P	
AC5	2202-002037	C-CERAMIC,MLC-AXIAL:100nF,80-20%,50V,Y5V		AIC5	AH14-10004R	IC:M74HCU04,SOP,TAPE 14P	
AC51	2203-000444	C-CERAMIC,CHIP:1nF,10%,50V,X7R,TP,2012,-		AL11	3301-000353	CORE-FERRITE BEAD:AB,2.0x1.25x0.9mm,-,-	
AC52	2202-000806	C-CERAMIC,MLC-AXIAL:220pF,10%,50V,Y5V,TP		AL15	3301-000353	CORE-FERRITE BEAD:AB,2.0x1.25x0.9mm,-,-	
AC53	2203-000595	C-CERAMIC,CHIP:0.22nF,5%,50V,NPO,TP,2012		AL19	2901-001125	FILTER-EMI ON BOARD:50V,0.5A,-,220pF,7x2	
AC56	2203-000192	C-CERAMIC,CHIP:100nF,+80-20%,50V,Y5V,TP,		AL20	2901-001125	FILTER-EMI ON BOARD:50V,0.5A,-,220pF,7x2	
AC57	2203-000192	C-CERAMIC,CHIP:100nF,+80-20%,50V,Y5V,TP,		AL21	3301-000353	CORE-FERRITE BEAD:AB,2.0x1.25x0.9mm,-,-	
AC58	2203-000192	C-CERAMIC,CHIP:100nF,+80-20%,50V,Y5V,TP,		AL22	3301-000353	CORE-FERRITE BEAD:AB,2.0x1.25x0.9mm,-,-	
AC59	2203-000192	C-CERAMIC,CHIP:100nF,+80-20%,50V,Y5V,TP,		AL5	3301-000353	CORE-FERRITE BEAD:AB,2.0x1.25x0.9mm,-,-	
AC60	2202-002037	C-CERAMIC,MLC-AXIAL:100nF,80-20%,50V,Y5V		AL6	3301-000353	CORE-FERRITE BEAD:AB,2.0x1.25x0.9mm,-,-	
AC61	2202-002037	C-CERAMIC,MLC-AXIAL:100nF,80-20%,50V,Y5V		AL7	3301-000353	CORE-FERRITE BEAD:AB,2.0x1.25x0.9mm,-,-	
AC71	2203-000192	C-CERAMIC,CHIP:100nF,+80-20%,50V,Y5V,TP,		AL8	3301-000353	CORE-FERRITE BEAD:AB,2.0x1.25x0.9mm,-,-	
AC75	2301-000161	C-FILM,PEF:12nF,5%,50V,TP,6.5X5.3X0.5,		AL9	3301-000353	CORE-FERRITE BEAD:AB,2.0x1.25x0.9mm,-,-	
AC76	2301-000161	C-FILM,PEF:12nF,5%,50V,TP,6.5X5.3X0.5,		AOP1	1201-000163	IC-OP AMP:4560,SOP,8P,173MIL,DUAL,100V/m	
AC77	2301-000161	C-FILM,PEF:12nF,5%,50V,TP,6.5X5.3X0.5,		AOP2	1201-000163	IC-OP AMP:4560,SOP,8P,173MIL,DUAL,100V/m	
AC78	2301-000161	C-FILM,PEF:12nF,5%,50V,TP,6.5X5.3X0.5,		AOP3	1201-000163	IC-OP AMP:4560,SOP,8P,173MIL,DUAL,100V/m	
AC79	2301-000161	C-FILM,PEF:12nF,5%,50V,TP,6.5X5.3X0.5,		AOP4	1201-000163	IC-OP AMP:4560,SOP,8P,173MIL,DUAL,100V/m	
AC80	2301-000161	C-FILM,PEF:12nF,5%,50V,TP,6.5X5.3X0.5,		AOP5	1201-000163	IC-OP AMP:4560,SOP,8P,173MIL,DUAL,100V/m	
AC90	2202-000849	C-CERAMIC,MLC-AXIAL:18pF,5%,50V,CH,TP,3.		A01	0501-000341	TR-SMALL SIGNAL:KSC1623-L,NPN,200mV,SOT-	
AC91	2202-000849	C-CERAMIC,MLC-AXIAL:18pF,5%,50V,CH,TP,3.		AQ10	0501-000341	TR-SMALL SIGNAL:KSC1623-L,NPN,200mV,SOT-	
AC92	2202-000849	C-CERAMIC,MLC-AXIAL:18pF,5%,50V,CH,TP,3.		AQ11	0501-000341	TR-SMALL SIGNAL:KSC1623-L,NPN,200mV,SOT-	
AC94	2202-000849	C-CERAMIC,MLC-AXIAL:18pF,5%,50V,CH,TP,3.		AQ12	0501-000341	TR-SMALL SIGNAL:KSC1623-L,NPN,200mV,SOT-	
AC95	2202-000849	C-CERAMIC,MLC-AXIAL:18pF,5%,50V,CH,TP,3.		AQ13	0501-000341	TR-SMALL SIGNAL:KSC1623-L,NPN,200mV,SOT-	
AC98	2203-000239	C-CERAMIC,CHIP:0.1nF,5%,50V,NPO,TP,2012		AQ14	0501-000341	TR-SMALL SIGNAL:KSC1623-L,NPN,200mV,SOT-	
AD10	0407-000114	DIODE-ARRAY:DAN202K,80V,100mA,CA2-3,SOT-		AQ15	0501-000341	TR-SMALL SIGNAL:KSC1623-L,NPN,200mV,SOT-	
AD12	0407-000114	DIODE-ARRAY:DAN202K,80V,100mA,CA2-3,SOT-		AQ16	0501-000341	TR-SMALL SIGNAL:KSC1623-L,NPN,200mV,SOT-	
AD13	0407-000114	DIODE-ARRAY:DAN202K,80V,100mA,CA2-3,SOT-		AQ17	0504-000118	TR-DIGITAL:KSR1003,NPN,300MW,22K/22K,TO-	
AD14	0407-000114	DIODE-ARRAY:DAN202K,80V,100mA,CA2-3,SOT-		AQ18	0504-000118	TR-DIGITAL:KSR1003,NPN,300MW,22K/22K,TO-	
AD15	0407-000114	DIODE-ARRAY:DAN202K,80V,100mA,CA2-3,SOT-		AQ19	0504-001003	TR-DIGITAL:KSR2003,PNP,300MW,22K/22K,TO-	
AD3	0407-000116	DIODE-ARRAY:DAP202K,80V,100mA,CK2-3,SOT-		AQ2	0501-000341	TR-SMALL SIGNAL:KSC1623-L,NPN,200mV,SOT-	
AD4	0401-000101	DIODE-SWITCHING:1N4148,100V,200mA,DO-35,		AQ23	0504-000128	TR-DIGITAL:-NPN,200MW,22K/22K,SOT-23,TP	
AD5	0401-000101	DIODE-SWITCHING:1N4148,100V,200mA,DO-35,		AQ24	0504-000156	TR-DIGITAL:DTA124EKA,PNP,200mW,22K-22K	
AD8	0407-000114	DIODE-ARRAY:DAN202K,80V,100mA,CA2-3,SOT-		AQ25	0504-000128	TR-DIGITAL:-NPN,200MW,22K/22K,SOT-23,TP	
AD9	0407-000114	DIODE-ARRAY:DAN202K,80V,100mA,CA2-3,SOT-		AQ26	0504-000156	TR-DIGITAL:DTA124EKA,PNP,200mW,22K-22K	
AE10	2401-002144	C-AL:47uF,20%,16V,GPT,TP,5x11.5		AQ27	0504-000128	TR-DIGITAL:-NPN,200MW,22K/22K,SOT-23,TP	
AE11	2401-002144	C-AL:47uF,20%,16V,GPT,TP,5x11.5		AQ28	0504-000156	TR-DIGITAL:DTA124EKA,PNP,200mW,22K-22K	
AE12	2401-002042	C-AL:220uF,20%,10V,GPT,TP,6.3x11.5		AQ29	0504-000128	TR-DIGITAL:-NPN,200MW,22K/22K,SOT-23,TP	
AE14	2401-002042	C-AL:220uF,20%,10V,GPT,TP,6.3x11.5		AQ3	0501-000341	TR-SMALL SIGNAL:KSC1623-L,NPN,200mV,SOT-	
AE15	2401-002068	C-AL:33uF,20%,16V,GPT,TP,5x11.5		AQ30	0504-000156	TR-DIGITAL:DTA124EKA,PNP,200mW,22K-22K	
AE16	2401-002068	C-AL:33uF,20%,16V,GPT,TP,5x11.5		AQ31	0504-000128	TR-DIGITAL:-NPN,200MW,22K/22K,SOT-23,TP	
AE17	2401-000913	C-AL:33uF,20%,16V,GPT,TP,5x11.5		AQ32	0504-000156	TR-DIGITAL:DTA124EKA,PNP,200mW,22K-22K	
AE18	2401-002068	C-AL:33uF,20%,16V,GPT,TP,5x11.5		AQ4	0501-000341	TR-SMALL SIGNAL:KSC1623-L,NPN,200mV,SOT-	
AE19	2401-002068	C-AL:33uF,20%,16V,GPT,TP,5x11.5		AQ5	0501-000341	TR-SMALL SIGNAL:KSC1623-L,NPN,200mV,SOT-	
AE20	2401-000913	C-AL:22uF,20%,16V,GPT,TP,5x11.5		AQ6	0501-000341	TR-SMALL SIGNAL:KSC1623-L,NPN,200mV,SOT-	
AE22	2401-002042	C-AL:220uF,20%,10V,GPT,TP,6.3x11.5		AQ7	0501-000341	TR-SMALL SIGNAL:KSC1623-L,NPN,200mV,SOT-	
AE23	2401-002042	C-AL:220uF,20%,10V,GPT,TP,6.3x11.5		AQ8	0501-000341	TR-SMALL SIGNAL:KSC1623-L,NPN,200mV,SOT-	
AE24	2401-002068	C-AL:33uF,20%,16V,GPT,TP,5x11.5		AQ9	0501-000341	TR-SMALL SIGNAL:KSC1623-L,NPN,200mV,SOT-	
AE25	2401-002068	C-AL:33uF,20%,16V,GPT,TP,5x11.5		AR1	2001-000281	R-CARBON:1000HM,5%,1/8W,AA,TP,1.8X3.2MM	
AE26	2401-000913	C-AL:22uF,20%,16V,GPT,TP,5x11.5		AR10	2001-000864	R-CARBON:56KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
AE27	2401-002068	C-AL:33uF,20%,16V,GPT,TP,5x11.5		AR100	2007-001071	R-CHIP:6.8KOHM,5%,1/10W,DA,TP,2012	
AE28	2401-002068	C-AL:33uF,20%,16V,GPT,TP,5x11.5		AR101	2007-000300	R-CHIP:10KOHM,5%,1/10W,DA,TP,2012	
AE29	2401-000913	C-AL:22uF,20%,16V,GPT,TP,5x11.5		AR104	2001-000429	R-CARBON:1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
AE30	2401-000302	C-AL:100uF,20%,25V,GPT,TP,6.3x11.5		AR106	2007-000766	R-CHIP:3300HM,5%,1/10W,DA,TP,2012	
AE31	2401-001969	C-AL:47uF,20%,25V,GPT,TP,10x12.5,5		AR107	2001-000878	R-CARBON:6.2KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
AE32	2401-002042	C-AL:220uF,20%,10V,GPT,TP,6.3x11.5		AR108	2001-000878	R-CARBON:6.2KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
AE34	2401-002042	C-AL:220uF,20%,10V,GPT,TP,6.3x11.5		AR109	2001-000878	R-CARBON:6.2KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
AE35	2401-002068	C-AL:33uF,20%,16V,GPT,TP,5x11.5		AR110	2007-001055	R-CHIP:6.2KOHM,5%,1/10W,DA,TP,2012	
AE36	2401-002068	C-AL:33uF,20%,16V,GPT,TP,5x11.5		AR111	2007-001055	R-CHIP:6.2KOHM,5%,1/10W,DA,TP,2012	
AE37	2401-000913	C-AL:22uF,20%,16V,GPT,TP,5x11.5		AR112	2007-000355	R-CHIP:12KOHM,5%,1/10W,DA,TP,2012	
AE38	2401-002068	C-AL:33uF,20%,16V,GPT,TP,5x11.5		AR113	2007-000300	R-CHIP:10KOHM,5%,1/10W,DA,TP,2012	
AE39	2401-002068	C-AL:33uF,20%,16V,GPT,TP,5x11.5		AR116	2001-000429	R-CARBON:1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
AE4	2401-002144	C-AL:47uF,20%,16V,GPT,TP,5x11.5		AR118	2007-000766	R-CHIP:3300HM,5%,1/10W,DA,TP,2012	
AE40	2401-000913	C-AL:22uF,20%,16V,GPT,TP,5x11.5		AR119	2007-000766	R-CHIP:3300HM,5%,1/10W,DA,TP,2012	
AE5	2401-002144	C-AL:47uF,20%,16V,GPT,TP,5x11.5		AR121	2007-001247	R-CHIP:910HM,5%,1/10W,DA,TP,2012	
AIC2	1002-001129	IC-D/A CONVERTER:AK4324VF,24BIT,VSOP,24P		AR130	2001-000281	R-CARBON:1000HM,5%,1/8W,AA,TP,1.8X3.2MM	
AIC3	1002-001129	IC-D/A CONVERTER:AK4324VF,24BIT,VSOP,24P		AR131	2001-000281	R-CARBON:1000HM,5%,1/8W,AA,TP,1.8X3.2MM	

Loc.No	Part No	Description ; Specification	Remark	Loc.No	Part No	Description ; Specification	Remark
AR132	2001-000281	R-CARBON:100OHM,5%,1/8W,AA,TP,1.8X3.2MM		AR82	2007-000766	R-CHIP:330OHM,5%,1/10W,DA,TP,2012	
AR134	2001-000281	R-CARBON:100OHM,5%,1/8W,AA,TP,1.8X3.2MM		AR83	2001-000003	R-CARBON:330ohm,5%,1/8W,AA,TP,1.8x3.2mm	
AR138	2007-000029	R-CHIP:0OHM,5%,1/10W,DA,TP,2012		AR84	2001-000281	R-CARBON:100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
AR152	2001-000429	R-CARBON:1KOHM,5%,1/8W,AA,TP,1.8X3.2MM		AR85	2001-000429	R-CARBON:1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
AR153	2001-000429	R-CARBON:1KOHM,5%,1/8W,AA,TP,1.8X3.2MM		AR86	2001-000003	R-CARBON:330ohm,5%,1/8W,AA,TP,1.8x3.2mm	
AR154	2001-000429	R-CARBON:1KOHM,5%,1/8W,AA,TP,1.8X3.2MM		AR87	2001-000281	R-CARBON:100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
AR155	2001-000429	R-CARBON:1KOHM,5%,1/8W,AA,TP,1.8X3.2MM		AR88	2001-000429	R-CARBON:1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
AR156	2001-000429	R-CARBON:1KOHM,5%,1/8W,AA,TP,1.8X3.2MM		AR89	2001-000003	R-CARBON:330ohm,5%,1/8W,AA,TP,1.8x3.2mm	
AR16	2007-000941	R-CHIP:47KOHM,5%,1/10W,DA,TP,2012		AR9	2001-000702	R-CARBON:39KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
AR17	2001-000786	R-CARBON:47KOHM,5%,1/8W,AA,TP,1.8X3.2MM		AR90	2001-000241	R-CARBON:1.5KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
AR18	2001-000429	R-CARBON:1KOHM,5%,1/8W,AA,TP,1.8X3.2MM		AR91	2001-000281	R-CARBON:100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
AR19	2001-000429	R-CARBON:1KOHM,5%,1/8W,AA,TP,1.8X3.2MM		AR92	2001-000281	R-CARBON:100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
AR2	2001-000281	R-CARBON:100OHM,5%,1/8W,AA,TP,1.8X3.2MM		AR93	2001-000281	R-CARBON:100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
AR28	2001-000995	R-CARBON:8200HM,5%,1/8W,AA,TP,1.8X3.2MM		AR94	2007-000308	R-CHIP:100HM,5%,1/10W,DA,TP,2012	
AR29	2001-000515	R-CARBON:2200HM,5%,1/8W,AA,TP,1.8X3.2MM		AR95	2001-000878	R-CARBON:6.2KOHM,5%,1/8W,AA,TP,1.8X3.2M	
AR30	2001-000429	R-CARBON:1KOHM,5%,1/8W,AA,TP,1.8X3.2MM		AR96	2001-000878	R-CARBON:6.2KOHM,5%,1/8W,AA,TP,1.8X3.2M	
AR31	2001-000429	R-CARBON:1KOHM,5%,1/8W,AA,TP,1.8X3.2MM		AR97	2001-000878	R-CARBON:6.2KOHM,5%,1/8W,AA,TP,1.8X3.2M	
AR33	2007-000308	R-CHIP:100HM,5%,1/10W,DA,TP,2012		AR98	2007-001055	R-CHIP:6.2KOHM,5%,1/10W,DA,TP,2012	
AR34	2001-000878	R-CARBON:6.2KOHM,5%,1/8W,AA,TP,1.8X3.2M		AR99	2007-001055	R-CHIP:6.2KOHM,5%,1/10W,DA,TP,2012	
AR35	2001-000878	R-CARBON:6.2KOHM,5%,1/8W,AA,TP,1.8X3.2M		AV1	3722-001355	JACK-RCA:3P(4P),3.2MM,NI,GRN/RED/BLU,-	
AR36	2001-000878	R-CARBON:6.2KOHM,5%,1/8W,AA,TP,1.8X3.2M		AV2	3722-001353	JACK-RCA:6P,3.2MM,NI,YEL/WHT/RED,-	
AR37	2007-001055	R-CHIP:6.2KOHM,5%,1/10W,DA,TP,2012		AV3	3722-001492	JACK-RCA:6P,3.5mm,NI,BLK,-	
AR38	2007-001055	R-CHIP:6.2KOHM,5%,1/10W,DA,TP,2012		AV4	3722-001053	JACK-RCA:1P,3.2mm,NI,BLK,-	
AR39	2007-001071	R-CHIP:6.8KOHM,5%,1/10W,DA,TP,2012		AV5	3707-001005	CONNECTOR-OPTICAL:PLUG,SM,-,4.4/2.0MM	
AR40	2001-000290	R-CARBON:10KOHM,5%,1/8W,AA,TP,1.8X3.2MM		AZD1	0403-000551	DIODE-ZENER:MTZ3.9B,3.9V,3.89-4.16V,500m	
AR41	2001-000995	R-CARBON:8200HM,5%,1/8W,AA,TP,1.8X3.2MM		CN11	3708-001084	CONNECTOR-FPC/FC/PIC:40P,1.25mm,ANGLE,SN	
AR42	2001-000515	R-CARBON:2200HM,5%,1/8W,AA,TP,1.8X3.2MM		CN12	AH39-00189A	LEAD CONNECTOR-ASSY:-,,-,,-,5264	
AR43	2001-000429	R-CARBON:1KOHM,5%,1/8W,AA,TP,1.8X3.2MM		CN15	3711-000682	CONNECTOR-HEADER-BOX,13P,1R,2mm,ANGLE,SN	
AR44	2001-000429	R-CARBON:1KOHM,5%,1/8W,AA,TP,1.8X3.2MM		CN17	AH39-00037A	LEAD CONNECTOR-ASSY:-,51004-06,35023-06,	
AR45	2007-000766	R-CHIP:330OHM,5%,1/10W,DA,TP,2012		CN18	AH39-00190A	LEAD CONNECTOR-ASSY:-,,-,,-,5100	
AR46	2001-000878	R-CARBON:6.2KOHM,5%,1/8W,AA,TP,1.8X3.2M		FC1	2202-002037	C-CERAMIC,MLC-AXIAL:100nF,80-20%,50V,Y5V	
AR47	2001-000878	R-CARBON:6.2KOHM,5%,1/8W,AA,TP,1.8X3.2M		FC10	2202-002037	C-CERAMIC,MLC-AXIAL:100nF,80-20%,50V,Y5V	
AR48	2001-000878	R-CARBON:6.2KOHM,5%,1/8W,AA,TP,1.8X3.2M		FC14	2202-002037	C-CERAMIC,MLC-AXIAL:100nF,80-20%,50V,Y5V	
AR49	2007-001055	R-CHIP:6.2KOHM,5%,1/10W,DA,TP,2012		FC15	2202-002037	C-CERAMIC,MLC-AXIAL:100nF,80-20%,50V,Y5V	
AR50	2007-001055	R-CHIP:6.2KOHM,5%,1/10W,DA,TP,2012		FC16	2203-000444	C-CERAMIC,CHIP:1nF,10%,50V,X7R,TP,2012,-	
AR51	2007-001071	R-CHIP:6.8KOHM,5%,1/10W,DA,TP,2012		FC2	2203-000389	C-CERAMIC,CHIP:0.015nF,5%,50VNPO,TP,201	
AR52	2007-000300	R-CHIP:10KOHM,5%,1/10W,DA,TP,2012		FC3	2203-000389	C-CERAMIC,CHIP:0.015nF,5%,50VNPO,TP,201	
AR53	2001-000003	R-CARBON:330ohm,5%,1/8W,AA,TP,1.8x3.2mm		FC4	2202-002037	C-CERAMIC,MLC-AXIAL:100nF,80-20%,50V,Y5V	
AR54	2001-000281	R-CARBON:100OHM,5%,1/8W,AA,TP,1.8X3.2MM		FC6	2203-000192	C-CERAMIC,CHIP:100nF,+80-20%,50V,Y5V,TP,	
AR55	2001-000429	R-CARBON:1KOHM,5%,1/8W,AA,TP,1.8X3.2MM		FD10	0401-000101	DIODE-SWITCHING:1N4148,100V,200mA,DO-35,	
AR56	2001-000429	R-CARBON:1KOHM,5%,1/8W,AA,TP,1.8X3.2MM		FD6	0401-000101	DIODE-SWITCHING:1N4148,100V,200mA,DO-35,	
AR57	2007-000766	R-CHIP:330OHM,5%,1/10W,DA,TP,2012		FD7	0401-000101	DIODE-SWITCHING:1N4148,100V,200mA,DO-35,	
AR58	2007-000308	R-CHIP:100HM,5%,1/10W,DA,TP,2012		FD8	0401-000101	DIODE-SWITCHING:1N4148,100V,200mA,DO-35,	
AR59	2001-000878	R-CARBON:6.2KOHM,5%,1/8W,AA,TP,1.8X3.2M		FD9	0403-000551	DIODE-ZENER:MTZ3.9B,3.9V,3.89-4.16V,500m	
AR60	2001-000878	R-CARBON:6.2KOHM,5%,1/8W,AA,TP,1.8X3.2M		FE1	2401-000913	C-AL:22uF,20%,16V,GP,TP,5x11,5	
AR61	2001-000878	R-CARBON:6.2KOHM,5%,1/8W,AA,TP,1.8X3.2M		FE12	2401-000240	C-AL:100uF,20%,10V,GP,TP,5x11,5	
AR62	2007-001055	R-CHIP:6.2KOHM,5%,1/10W,DA,TP,2012		FE13	2401-000240	C-AL:100uF,20%,10V,GP,TP,5x11,5	
AR63	2007-001055	R-CHIP:6.2KOHM,5%,1/10W,DA,TP,2012		FE2	2401-002144	C-AL:47uF,20%,16V,GP,TP,5x11,5	
AR64	2007-001071	R-CHIP:6.8KOHM,5%,1/10W,DA,TP,2012		FE5	2401-002144	C-AL:47uF,20%,16V,GP,TP,5x11,5	
AR65	2007-000300	R-CHIP:10KOHM,5%,1/10W,DA,TP,2012		FE8	2401-002144	C-AL:47uF,20%,16V,GP,TP,5x11,5	
AR66	2001-000003	R-CARBON:330ohm,5%,1/8W,AA,TP,1.8x3.2mm		FIC1	AH11-10002F	IC-MASK ROM:LC86P6232,-,DIP	
AR67	2001-000281	R-CARBON:100OHM,5%,1/8W,AA,TP,1.8X3.2MM		FIC2	1203-001252	IC-VOL. DETECTOR:7545,TO-92,3P,-,PLASTIC	
AR68	2001-000429	R-CARBON:1KOHM,5%,1/8W,AA,TP,1.8X3.2MM		FIC3	0801-002166	IC-CMOS LOGIC:7SHU04,INVERTER,SSOP,5P,63	
AR69	2001-000429	R-CARBON:1KOHM,5%,1/8W,AA,TP,1.8X3.2MM		FIC4	AH59-00010A	MODULE-REMOCON:-,37.9kHz,940nm,-,-	
AR70	2007-000766	R-CHIP:330OHM,5%,1/10W,DA,TP,2012		FL1	2701-000114	INDUCTOR-AXIAL:10uH,10%,2.5x3.4mm	
AR71	2001-000878	R-CARBON:6.2KOHM,5%,1/8W,AA,TP,1.8X3.2M		FL2	2701-000113	INDUCTOR-AXIAL:100uH,5%,2.5x3.4mm	
AR72	2001-000878	R-CARBON:6.2KOHM,5%,1/8W,AA,TP,1.8X3.2M		FR1	2001-000273	R-CARBON:100KOHM,5%,1/8W,AA,TP,1.8X3.2M	
AR73	2001-000878	R-CARBON:6.2KOHM,5%,1/8W,AA,TP,1.8X3.2M		FR10	2001-000281	R-CARBON:100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
AR74	2007-001055	R-CHIP:6.2KOHM,5%,1/10W,DA,TP,2012		FR101	2001-000273	R-CARBON:100KOHM,5%,1/8W,AA,TP,1.8X3.2M	
AR75	2007-001055	R-CHIP:6.2KOHM,5%,1/10W,DA,TP,2012		FR102	2001-000273	R-CARBON:100KOHM,5%,1/8W,AA,TP,1.8X3.2M	
AR76	2007-001071	R-CHIP:6.8KOHM,5%,1/10W,DA,TP,2012		FR103	2001-000273	R-CARBON:100KOHM,5%,1/8W,AA,TP,1.8X3.2M	
AR77	2001-000290	R-CARBON:10KOHM,5%,1/8W,AA,TP,1.8X3.2MM		FR104	2001-000273	R-CARBON:100KOHM,5%,1/8W,AA,TP,1.8X3.2M	
AR78	2001-000003	R-CARBON:330ohm,5%,1/8W,AA,TP,1.8x3.2mm		FR105	2001-000273	R-CARBON:100KOHM,5%,1/8W,AA,TP,1.8X3.2M	
AR79	2001-000281	R-CARBON:100OHM,5%,1/8W,AA,TP,1.8X3.2MM		FR106	2001-000273	R-CARBON:100KOHM,5%,1/8W,AA,TP,1.8X3.2M	
AR80	2001-000429	R-CARBON:1KOHM,5%,1/8W,AA,TP,1.8X3.2MM		FR11	2001-000281	R-CARBON:100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
AR81	2001-000429	R-CARBON:1KOHM,5%,1/8W,AA,TP,1.8X3.2MM		FR12	2001-000281	R-CARBON:100OHM,5%,1/8W,AA,TP,1.8X3.2MM	

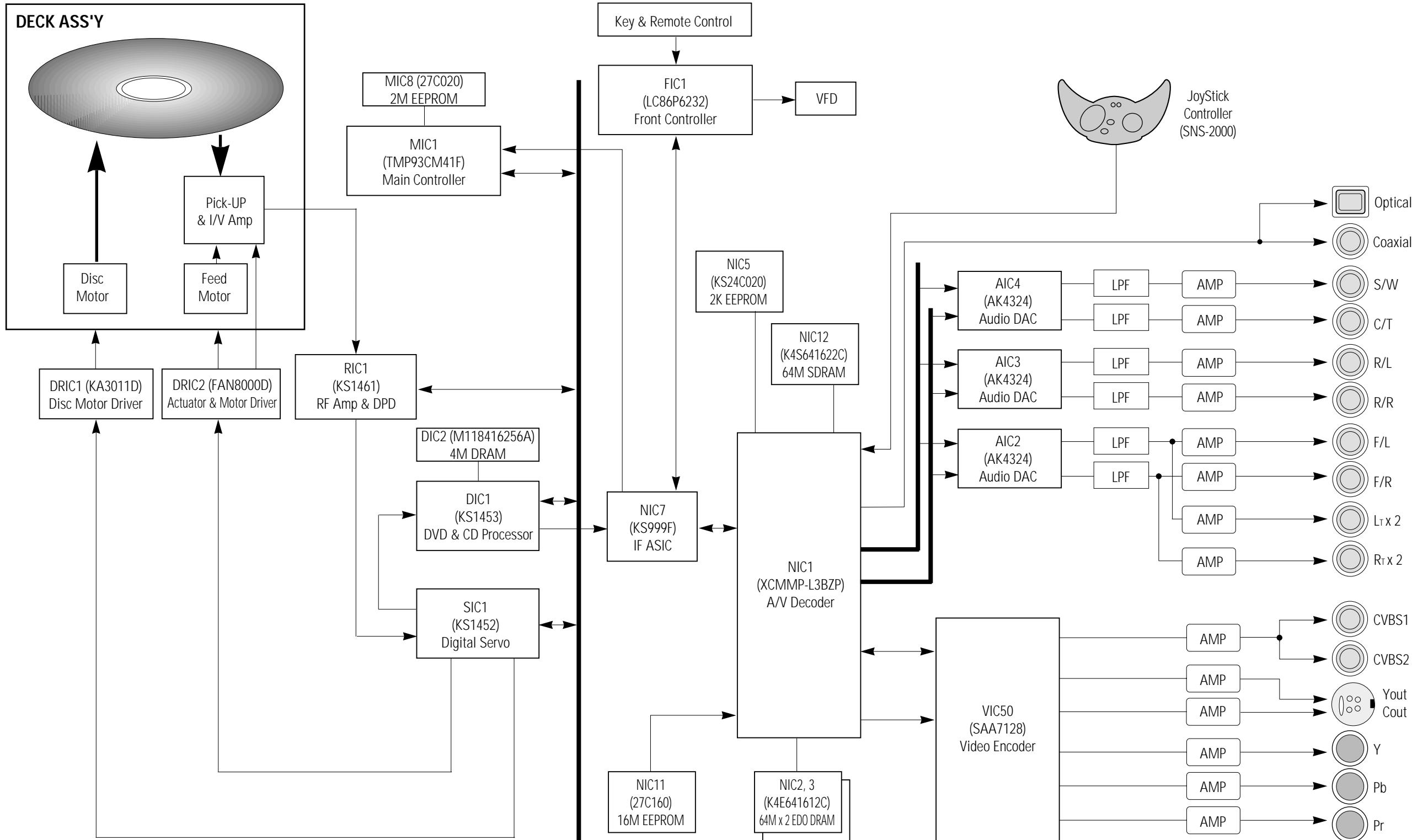
Loc.No	Part No	Description ; Specification	Remark	Loc.No	Part No	Description ; Specification	Remark
FR13	2001-000281	R-CARBON:1000HM,5%,1/8W,AA,TP,1.8X3.2MM		PD32	0402-000430	DIODE-RECTIFIER: FML-G02S,200V,3.0A,TO-22	
FR16	2001-000027	R-CARBON:1000HM,5%,1/4W,AA,TP,2.4X6.4MM		PD33	0404-000128	DIODE-SCHOTTKY:FMB-G14L,45V,5A,TO-220F,T	
FR17	2001-000027	R-CARBON:1000HM,5%,1/4W,AA,TP,2.4X6.4MM		PD34	0404-000128	DIODE-SCHOTTKY:FMB-G14L,45V,5A,TO-220F,T	
FR18	2001-000449	R-CARBON:2.2KOHM,5%,1/8W,AA,TP,1.8X3.2M		PD35	0402-001013	DIODE-RECTIFIER:1SR153-400,400V,800mA,DO	
FR19	2001-000449	R-CARBON:2.2KOHM,5%,1/8W,AA,TP,1.8X3.2M		PD37	0402-000132	DIODE-RECTIFIER:1N4004,400V,1A,DO-41,TP	
FR20	2001-000449	R-CARBON:2.2KOHM,5%,1/8W,AA,TP,1.8X3.2M		PD38	0402-000132	DIODE-RECTIFIER:1N4004,400V,1A,DO-41,TP	
FR21	2001-000435	R-CARBON:1MOHM,5%,1/8W,AA,TP,1.8X3.2MM		PE10	2401-001353	C-AL:470uF,20%,10V,GP,TP,8x11.5,5	
FR24	2001-000281	R-CARBON:1000HM,5%,1/8W,AA,TP,1.8X3.2MM		PE11	2401-000302	C-AL:100uF,20%,25V,GP,TP,6.3x11.5	
FR25	2001-000780	R-CARBON:4700HM,5%,1/8W,AA,TP,1.8X3.2MM		PE12	2401-000302	C-AL:100uF,20%,25V,GP,TP,6.3x11.5	
FR26	2001-000281	R-CARBON:1000HM,5%,1/8W,AA,TP,1.8X3.2MM		PE13	2401-000302	C-AL:100uF,20%,25V,GP,TP,6.3x11.5	
FR31	2007-000282	R-CHIP:100KOHM,5%,1/10W,DA,TP,2012		PE3	2401-001682	C-AL:82uF,20%,400V,GP,BK,22x25,10	△
FR32	2007-000282	R-CHIP:100KOHM,5%,1/10W,DA,TP,2012		PE31	2401-000302	C-AL:100uF,20%,25V,GP,TP,6.3x11.5	
FR33	2007-000282	R-CHIP:100KOHM,5%,1/10W,DA,TP,2012		PE32	2401-003059	C-AL:1000uF,20%,16V,WT,TP,10X16.5	
FR34	2007-000282	R-CHIP:100KOHM,5%,1/10W,DA,TP,2012		PE33	2401-003059	C-AL:1000uF,20%,16V,WT,TP,10X16.5	
FR35	2007-000282	R-CHIP:100KOHM,5%,1/10W,DA,TP,2012		PE35	2401-000360	C-AL:100uF,20%,50V,GP,TP,8x11.5,5	
FR36	2007-000282	R-CHIP:100KOHM,5%,1/10W,DA,TP,2012		PE36	2401-001998	C-AL:1000uF,20%,25V,GP,TP,10x20,5mm	
FR37	2007-000282	R-CHIP:100KOHM,5%,1/10W,DA,TP,2012		PE37	2401-001134	C-AL:330uF,20%,35V,WT,TP,10x16.5	
FR43	2001-000793	R-CARBON:470HM,5%,1/8W,AA,TP,1.8X3.2MM		PE38	2401-002144	C-AL:47uF,20%,16V,GP,TP,5x11.5	
FR44	2001-000429	R-CARBON:1KOHM,5%,1/8W,AA,TP,1.8X3.2MM		PE39	2401-001134	C-AL:330uF,20%,35V,WT,TP,10x16.5	
FR45	2001-000429	R-CARBON:1KOHM,5%,1/8W,AA,TP,1.8X3.2MM		PE4	2401-000302	C-AL:100uF,20%,25V,GP,TP,6.3x11.5	
FR46	2001-000273	R-CARBON:100KOHM,5%,1/8W,AA,TP,1.8X3.2M		PE41	2401-002036	C-AL:1uF,20%,50V,GP,TP,5x11.2.5	
FR5	2001-000325	R-CARBON:1200HM,5%,1/8W,AA,TP,1.8X3.2MM		PE42	2401-002144	C-AL:47uF,20%,16V,GP,TP,5x11.5	
FR57	2001-000290	R-CARBON:10KOHM,5%,1/8W,AA,TP,1.8X3.2MM		PE43	2401-002144	C-AL:47uF,20%,16V,GP,TP,5x11.5	
FR58	2007-000029	R-CHIP:0OHM,5%,1/10W,DA,TP,2012		PE44	2401-002036	C-AL:1uF,20%,50V,GP,TP,5x11.2.5	
FR59	2007-000029	R-CHIP:0OHM,5%,1/10W,DA,TP,2012		PE6	2401-001583	C-AL:47uF,20%,50V,WT,TP,6.3x11.5	
FR60	2007-000029	R-CHIP:0OHM,5%,1/10W,DA,TP,2012		PE7	2401-001353	C-AL:470uF,20%,10V,GP,TP,8x11.5,5	
FR61	2007-000029	R-CHIP:0OHM,5%,1/10W,DA,TP,2012		PFOA	3601-000453	FUSE-AXIAL LEAD:250V,1.6A,SLOW-BLOW,GLAS	△
FR62	2007-000023	R-CHIP:1200HM,5%,1/10W,DA,TP,2012		PIC1	1203-001721	IC-PWM CONTROLLER-STR-G6153T,T0-220,5P,1	△
FY1	2802-000108	RESONATOR-CERAMIC;12MHZ,0.5%,BK,10.0X5.0		PIC2	0604-000186	PHOTO-COUPLER;TR,-,200mW,DIP-4,ST	△
HR03	2001-000273	R-CARBON:100KOHM,5%,1/8W,AA,TP,1.8X3.2M		PIC3	AC14-12006D	IC:KA431Z,TO-92,TAPING	△
HR04	2001-000273	R-CARBON:100KOHM,5%,1/8W,AA,TP,1.8X3.2M		PIC4	1203-000122	IC-NEGA.FIXED REG.:7908,TO-220,3P,-PLAS	
JP203	2007-000033	R-CHIP:0OHM,5%,1/8W,DA,TP,3216		PIC5	1203-001697	IC-VOLTAGE REGULATOR:78R08,TO-220,4P,-P	
JP213	2007-000033	R-CHIP:0OHM,5%,1/8W,DA,TP,3216		PIC6	1203-001083	IC-VOLTAGE REGULATOR:3RF23,TO-202,4P,12.	
JP214	2007-000033	R-CHIP:0OHM,5%,1/8W,DA,TP,3216		PIC7	1203-001083	IC-VOLTAGE REGULATOR:3RF23,TO-202,4P,12.	
JP215	2007-000033	R-CHIP:0OHM,5%,1/8W,DA,TP,3216		PL01	AC29-30050A	FILTER-LINE NOISE:-,400UH,-,250V,-	△
JP221	2007-000033	R-CHIP:0OHM,5%,1/8W,DA,TP,3216		PL02	AC27-92001Q	COIL-LINE FILTER:BSF-2120Z,25MH,-,-,	△
JP229	2007-000033	R-CHIP:0OHM,5%,1/8W,DA,TP,3216		PL03	3301-000297	CORE-FERRITE BEAD:AA,3.6x1.2x5.7mm,1400,	
JP317	2007-000033	R-CHIP:0OHM,5%,1/8W,DA,TP,3216		PL04	3301-000297	CORE-FERRITE BEAD:AA,3.6x1.2x5.7mm,1400,	
JP324	2007-000033	R-CHIP:0OHM,5%,1/8W,DA,TP,3216		PL11	3301-000297	CORE-FERRITE BEAD:AA,3.6x1.2x5.7mm,1400,	
JP325	2007-000033	R-CHIP:0OHM,5%,1/8W,DA,TP,3216		PQ1	0501-000398	TR-SMALL SIGNAL:KSC945,NPN,250mW,TO-92,T	
JP338	2007-000033	R-CHIP:0OHM,5%,1/8W,DA,TP,3216		PQ2	0501-000616	TR-SMALL SIGNAL:KSC2328A-Y,NPN,1W,TO-92L	
JP343	2007-000033	R-CHIP:0OHM,5%,1/8W,DA,TP,3216		PQ21	0504-000142	TR-DIGITAL:KSR2001,PNP,300MW,4.7K/4.7K,T	
JP97	2007-000033	R-CHIP:0OHM,5%,1/8W,DA,TP,3216		PQ22	0504-000118	TR-DIGITAL:KSR1003,NPN,300MW,22K/22K,TO-	
MR2	2007-000029	R-CHIP:0OHM,5%,1/10W,DA,TP,2012		PQ23	0502-000298	TR-POWER:KSD73,NPN,30W,TO-220,-,120-240	
PC01	2305-001021	C-FILM,MPEF:100nF,20%,275V,TP,17.5x7x13.	△	PQ24	0502-000298	TR-POWER:KSD73,NPN,30W,TO-220,-,120-240	
PC02	2305-001021	C-FILM,MPEF:100nF,20%,275V,TP,17.5x7x13.	△	PQ3	0504-000118	TR-DIGITAL:KSR1003,NPN,300MW,22K/22K,TO-	
PC04	2301-000140	C-FILM,PEF:10nf,10%,630V,BK,16.5X9.5X5.7		PQ4	0504-000142	TR-DIGITAL:KSR2001,PNP,300MW,4.7K/4.7K,T	
PC05	2201-000129	C-CERAMIC,DISC:0.1nf,10%,1kV,Y5P,TP,7x4,	△	PR10	2006-000262	R-CEMENT:2.7ohm,10%,2W,CB,TP,7.5x11x20.	
PC07	2301-000129	C-FILM,PEF:100nf,5%,50V,TP,10X9X4.3X5.5m		PR11	2001-000073	R-CARBON:33KOHM,5%,1/4W,AA,TP,2.4X6.4MM	
PC09	2301-000415	C-FILM,PEF:22nf,5%,50V,TP,6.5x10.5x4mm,5	△	PR12	2001-000073	R-CARBON:33KOHM,5%,1/4W,AA,TP,2.4X6.4MM	
PC10	2201-000916	C-CERAMIC,DISC:100pf,10%,400V,Y5U,TP,10x	△	PR13	2001-000073	R-CARBON:33KOHM,5%,1/4W,AA,TP,2.4X6.4MM	
PC11	2201-000916	C-CERAMIC,DISC:100pf,10%,400V,Y5U,TP,10x	△	PR14	2001-000073	R-CARBON:33KOHM,5%,1/4W,AA,TP,2.4X6.4MM	
PC12	2203-000575	C-CERAMIC,CHIP:220NF,10%,25V,X7R,TP,2012		PR15	2003-000994	R-METAL OXIDE(S):33Kohm,5%,2W,AF,TP,3.9x	
PC13	2203-000575	C-CERAMIC,CHIP:220NF,10%,25V,X7R,TP,2012		PR16	2003-000994	R-METAL OXIDE(S):33Kohm,5%,2W,AF,TP,3.9x	
PC14	2203-000575	C-CERAMIC,CHIP:220NF,10%,25V,X7R,TP,2012		PR17	2003-000148	R-METAL OXIDE:1000HM,5%,2W,AE,TP,6X16MM	
PC15	2203-000575	C-CERAMIC,CHIP:220NF,10%,25V,X7R,TP,2012		PR18	2001-000527	R-CARBON:220HM,5%,1/8W,AA,TP,1.8X3.2MM	
PC44	2301-000129	C-FILM,PEF:100nf,5%,50V,TP,10X9X4.3X5.5m		PR2	2003-000148	R-METAL OXIDE:1000HM,5%,2W,AE,TP,6X16MM	
PCN01	3711-000178	CONNECTOR-HEADER;1WALL,2P1R,3.96mm,STRA	△	PR20	2001-000429	R-CARBON:1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
PD01	0402-001009	DIODE-RECTIFIER:1SR139,600V,1A,MSR,TP	△	PR21	2001-000429	R-CARBON:1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
PD02	0402-001009	DIODE-RECTIFIER:1SR139,600V,1A,MSR,TP	△	PR3	2001-000734	R-CARBON:4.7KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
PD03	0402-001009	DIODE-RECTIFIER:1SR139,600V,1A,MSR,TP	△	PR31	2001-000515	R-CARBON:2200HM,5%,1/8W,AA,TP,1.8X3.2MM	
PD04	0402-001009	DIODE-RECTIFIER:1SR139,600V,1A,MSR,TP	△	PR32	2001-000429	R-CARBON:1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
PD11	0402-000378	DIODE-RECTIFIER:EG01C,1000V,500mA,DO-41		PR33	2001-000429	R-CARBON:1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
PD12	0402-001013	DIODE-RECTIFIER:1SR153-400,400V,800mA,DO		PR34	2001-000440	R-CARBON:10HM,5%,1/8W,AA,TP,1.8X3.2MM	
PD3	0402-001013	DIODE-RECTIFIER:1SR153-400,400V,800mA,DO		PR35	2001-000362	R-CARBON:1500HM,5%,1/8W,AA,TP,1.8X3.2MM	
PD31	0402-001013	DIODE-RECTIFIER:1SR153-400,400V,800mA,DO		PR36	2001-000221	R-CARBON:1.2KOHM,5%,1/8W,AA,TP,1.8X3.2MM	

Loc.No	Part No	Description ; Specification	Remark	Loc.No	Part No	Description ; Specification	Remark
PR37	2001-000429	R-CARBON:1KOHM,5%,1/8W,AA,TP,1.8X3.2MM		VR113	2001-000666	R-CARBON:330HM,5%,1/8W,AA,TP,1.8X3.2MM	
PR38	2004-000869	R-METAL:3Kohm,1%,1/8W,AA,TP,1.8x3.2mm		VR114	2001-000666	R-CARBON:330HM,5%,1/8W,AA,TP,1.8X3.2MM	
PR39	2004-000459	R-METAL:2.2Kohm,1%,1/8W,AA,TP,1.8x3.2m		VR115	2001-000666	R-CARBON:330HM,5%,1/8W,AA,TP,1.8X3.2MM	
PR4	2001-000429	R-CARBON:1KOHM,5%,1/8W,AA,TP,1.8X3.2MM		VR116	2001-000666	R-CARBON:330HM,5%,1/8W,AA,TP,1.8X3.2MM	
PR40	2003-000111	R-METAL OXIDE:0.47ohm,5%,1W,AD,TP,4.3x12		VR117	2001-000969	R-CARBON:750HM,5%,1/8W,AA,TP,1.8X3.2MM	
PR5	2001-000281	R-CARBON:1000HM,5%,1/8W,AA,TP,1.8X3.2MM		VR12	2001-000472	R-CARBON:2.7KOHM,5%,1/8W,AA,TP,1.8X3.2M	
PR6	2001-000429	R-CARBON:1KOHM,5%,1/8W,AA,TP,1.8X3.2MM		VR13	2001-000472	R-CARBON:2.7KOHM,5%,1/8W,AA,TP,1.8X3.2M	
PT01	AH26-00008A	TRANS-SWITCHING:-.85V-240V,UL/CSA,EE2821	▲	VR130	2001-000969	R-CARBON:750HM,5%,1/8W,AA,TP,1.8X3.2MM	
PVA01	1405-000186	VARISTOR:470V,4500A,17x12mm,TP	▲	VR132	2001-000780	R-CARBON:4700HM,5%,1/8W,AA,TP,1.8X3.2MM	
PZD31	0403-000716	DIODE-ZENER:MTZJ4.7B 4.7V,4.55-.4.8V,500m		VR133	2001-000780	R-CARBON:4700HM,5%,1/8W,AA,TP,1.8X3.2MM	
RC12	2201-000812	C-CERAMIC,DISC:2.2nF,20%,400V,Y5U,BK,12.	▲	VR14	2001-000472	R-CARBON:2.7KOHM,5%,1/8W,AA,TP,1.8X3.2M	
RC13	2201-000812	C-CERAMIC,DISC:2.2nF,20%,400V,Y5U,BK,12.	▲	VR146	2001-000969	R-CARBON:750HM,5%,1/8W,AA,TP,1.8X3.2MM	
RL03	3301-000297	CORE-FERRITE BEAD:AA,3.6x1.2x5.7mm,1400,		VR15	2001-000734	R-CARBON:4.7KOHM,5%,1/8W,AA,TP,1.8X3.2M	
SVJ1	3722-001375	JACK-DIN:4P,-,NI,BLK,-		VR16	2001-000734	R-CARBON:4.7KOHM,5%,1/8W,AA,TP,1.8X3.2M	
VC1	2203-000192	C-CERAMIC,CHIP:100nF,+80-20%,50V,Y5V,TP,		VR175	2001-000969	R-CARBON:750HM,5%,1/8W,AA,TP,1.8X3.2MM	
VC10	2202-000849	C-CERAMIC,MLC-AXIAL:18pF,5%,50V,CH,TP,3.		VR176	2001-000362	R-CARBON:1500HM,5%,1/8W,AA,TP,1.8X3.2MM	
VC100	2203-000192	C-CERAMIC,CHIP:100nF,+80-20%,50V,Y5V,TP,		VR177	2001-000674	R-CARBON:3600HM,5%,1/8W,AA,TP,1.8X3.2MM	
VC101	2203-000192	C-CERAMIC,CHIP:100nF,+80-20%,50V,Y5V,TP,		VR178	2001-000003	R-CARBON:330ohm,5%,1/8W,AA,TP,1.8x3.2mm	
VC102	2203-000192	C-CERAMIC,CHIP:100nF,+80-20%,50V,Y5V,TP,		VR192	2001-000969	R-CARBON:750HM,5%,1/8W,AA,TP,1.8X3.2MM	
VC103	2202-002037	C-CERAMIC,MLC-AXIAL:100nF,80-20%,50V,Y5V		VR193	2001-000969	R-CARBON:750HM,5%,1/8W,AA,TP,1.8X3.2MM	
VC104	2202-002037	C-CERAMIC,MLC-AXIAL:100nF,80-20%,50V,Y5V		VR4	2001-000241	R-CARBON:1.5KOHM,5%,1/8W,AA,TP,1.8X3.2M	
VC11	2202-000849	C-CERAMIC,MLC-AXIAL:18pF,5%,50V,CH,TP,3.		VR5	2001-000241	R-CARBON:1.5KOHM,5%,1/8W,AA,TP,1.8X3.2M	
VC12	2202-000849	C-CERAMIC,MLC-AXIAL:18pF,5%,50V,CH,TP,3.		701	AH92-00330A	ASSY-PCB-KEY POWER;DVD-N999,KEY-POWER	
VC2	2203-000192	C-CERAMIC,CHIP:100nF,+80-20%,50V,Y5V,TP,		CN101	3711-000683	CONNECTOR-HEADER-BOX,13P,1R,2mm,STRAIGHT	
VC3	2203-000192	C-CERAMIC,CHIP:100nF,+80-20%,50V,Y5V,TP,		CN102	3711-001062	CONNECTOR-HEADER-BOX,6P,1R,2mm,STRAIGHT,	
VC4	2202-000849	C-CERAMIC,MLC-AXIAL:18pF,5%,50V,CH,TP,3.		HPJ01	3722-000345	JACK-PHONE:3P,6.4mm,AG,BLK,-	
VC5	2202-000849	C-CERAMIC,MLC-AXIAL:18pF,5%,50V,CH,TP,3.		JC1	2202-002037	C-CERAMIC,MLC-AXIAL:100nF,80-20%,50V,Y5V	
VC6	2202-000849	C-CERAMIC,MLC-AXIAL:18pF,5%,50V,CH,TP,3.		JC2	2401-001468	C-AL:47uf,20%,10V,GP,TP,5x11,5	
VC7	2202-000849	C-CERAMIC,MLC-AXIAL:18pF,5%,50V,CH,TP,3.		JC3	2202-002037	C-CERAMIC,MLC-AXIAL:100nF,80-20%,50V,Y5V	
VC8	2202-000849	C-CERAMIC,MLC-AXIAL:18pF,5%,50V,CH,TP,3.		JC4	2202-002037	C-CERAMIC,MLC-AXIAL:100nF,80-20%,50V,Y5V	
VC9	2202-000849	C-CERAMIC,MLC-AXIAL:18pF,5%,50V,CH,TP,3.		JC5	2401-001468	C-AL:47uf,20%,10V,GP,TP,5x11,5	
VE51	2401-002042	C-AL:220uF,20%,10V,GP,TP,6.3x11,5		JL1	2701-000114	INDUCTOR-AXIAL:10uH,10%,2.5x3.4mm	
VE54	2401-000369	C-AL:100uF,20%,6.3V,GP,-,6.3x11,5		JL2	2901-001184	FILTER-EMI ON BOARD:50V,0.5A,-,680pF,7x2	
VE55	2401-000913	C-AL:22uF,20%,16V,GP,TP,5x11,5		JL3	2901-001184	FILTER-EMI ON BOARD:50V,0.5A,-,680pF,7x2	
VE58	2401-000369	C-AL:100uF,20%,6.3V,GP,-,6.3x11,5		JL4	2901-001184	FILTER-EMI ON BOARD:50V,0.5A,-,680pF,7x2	
VE58A	2401-000913	C-AL:22uF,20%,16V,GP,TP,5x11,5		JL5	2901-001184	FILTER-EMI ON BOARD:50V,0.5A,-,680pF,7x2	
VE60	2401-001353	C-AL:470uF,20%,10V,GP,TP,8x11,5,5		JL6	2901-001184	FILTER-EMI ON BOARD:50V,0.5A,-,680pF,7x2	
VE61	2401-000913	C-AL:22uF,20%,16V,GP,TP,5x11,5		JQ1	0501-000398	TR-SMALL SIGNAL:KSC945,NPN,250mW,TQ-92,T	
VE66	2401-001353	C-AL:470uF,20%,10V,GP,TP,8x11,5,5		JQ2	0501-000303	TR-SMALL SIGNAL:KSA733,PNP,250mW,TQ-92,T	
VE67	2401-000913	C-AL:22uF,20%,16V,GP,TP,5x11,5		JQ3	0501-000398	TR-SMALL SIGNAL:KSC945,NPN,250mW,TQ-92,T	
VE69	2401-001353	C-AL:470uF,20%,10V,GP,TP,8x11,5,5		JQ4	0501-000610	TR-SMALL SIGNAL:KSA928A-Y,PNP,1W,TQ-92L	
VE70	2401-002042	C-AL:220uF,20%,10V,GP,TP,6.3x11,5		JR1	2001-000429	R-CARBON:1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
VE71	2401-002042	C-AL:220uF,20%,10V,GP,TP,6.3x11,5		JR10	2001-000527	R-CARBON:220HM,5%,1/8W,AA,TP,1.8X3.2MM	
VE72	2401-002042	C-AL:220uF,20%,10V,GP,TP,6.3x11,5		JR11	2001-000527	R-CARBON:220HM,5%,1/8W,AA,TP,1.8X3.2MM	
VE73	2401-002042	C-AL:220uF,20%,10V,GP,TP,6.3x11,5		JR12	2001-000527	R-CARBON:220HM,5%,1/8W,AA,TP,1.8X3.2MM	
VFD1	AH07-00002A	VF-DISPLAY:SV-08M,21SEG,25X100MM,DVD-90		JR13	2001-000527	R-CARBON:220HM,5%,1/8W,AA,TP,1.8X3.2MM	
VIC50	1204-001366	IC-VIDEO ENCODER:SAA7128,OPP,4P,-,PLAST		JR14	2001-000290	R-CARBON:10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
VIC51	1201-001419	IC-VIDEO AMP:7660,SSOP,16P,173MIL,3,6DB,		JR2	2001-000290	R-CARBON:10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
VIC52	1201-001419	IC-VIDEO AMP:7660,SSOP,16P,173MIL,3,6DB,		JR3	2001-000241	R-CARBON:1.5KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
VL1	2701-000160	INDUCTOR-AXIAL:22uH,5%,2.4x3.4mm		JR4	2001-000456	R-CARBON:2.20HM,5%,1/4W,AA,TP,2.4x6.4MM	
VL100	3301-000353	CORE-FERRITE BEAD:AB,2.0x1.25x0.9mm,-,		JR5	2001-000302	R-CARBON:100HM,5%,1/8W,AA,TP,1.8X3.2MM	
VL110	3301-000297	CORE-FERRITE BEAD:AA,3.6x1.2x5.7mm,1400,		JR6	2001-000057	R-CARBON:5.1Kohm,5%,1/8W,AA,TP,1.8x3.2m	
VL111	3301-000297	CORE-FERRITE BEAD:AA,3.6x1.2x5.7mm,1400,		JR7	2001-000290	R-CARBON:10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
VL112	3301-000353	CORE-FERRITE BEAD:AB,2.0x1.25x0.9mm,-,		JR8	2001-000429	R-CARBON:1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
VL113	2701-000138	INDUCTOR-AXIAL:18uH,5%,2.5x3.4mm		JR9	2001-000429	R-CARBON:1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
VL114	3301-000297	CORE-FERRITE BEAD:AA,3.6x1.2x5.7mm,1400,		JSJ1	3722-001455	JACK-DIN:4P,-,AU30U,BLK,-	
VL115	2701-000002	INDUCTOR-AXIAL:100uH,10%,4.2x9.8mm		JSJ2	3722-001455	JACK-DIN:4P,-,AU30U,BLK,-	
VL116	2701-000002	INDUCTOR-AXIAL:100uH,10%,4.2x9.8mm		JU1	0801-000711	IC-CMOS LOGIC:74HC244,BUFFER/DRIVER,DIP,	
VL119	3301-000353	CORE-FERRITE BEAD:AB,2.0x1.25x0.9mm,-,		KC1	2202-002037	C-CERAMIC,MLC-AXIAL:100nF,80-20%,50V,Y5V	
VL2	2701-000160	INDUCTOR-AXIAL:22uH,5%,2.4x3.4mm		KC2	2202-002037	C-CERAMIC,MLC-AXIAL:100nF,80-20%,50V,Y5V	
VR100	2001-000281	R-CARBON:1000HM,5%,1/8W,AA,TP,1.8X3.2MM		KC3	2202-000173	C-CERAMIC,MLC-AXIAL:1nF,10%,50V,Y5P,TP,1	
VR108	2001-000969	R-CARBON:750HM,5%,1/8W,AA,TP,1.8X3.2MM		KC4	2202-000173	C-CERAMIC,MLC-AXIAL:1nF,10%,50V,Y5P,TP,1	
VR109	2001-000666	R-CARBON:330HM,5%,1/8W,AA,TP,1.8X3.2MM		KCE8	2401-002007	C-AL:100uF,20%,16V,GP,TP,6.3x11,5	
VR110	2001-000666	R-CARBON:330HM,5%,1/8W,AA,TP,1.8X3.2MM		KCE9	2401-002007	C-AL:100uF,20%,16V,GP,TP,6.3x11,5	
VR111	2001-000666	R-CARBON:330HM,5%,1/8W,AA,TP,1.8X3.2MM		KD1	0601-001447	LED:ROUND,RED,3.1mm,650nm	
VR112	2001-000666	R-CARBON:330HM,5%,1/8W,AA,TP,1.8X3.2MM					

Electrical Parts List

Loc.No	Part No	Description ; Specification	Remark	Loc.No	Part No	Description ; Specification	Remark
KL1	2701-000113	INDUCTOR-AXIAL;100uH,5%,2.5x3.4mm					
KL2	2701-000113	INDUCTOR-AXIAL;100uH,5%,2.5x3.4mm					
KOP3	1201-000191	IC-OP AMP;4558,DIP,8P,300MIL,DUAL,20V/mV					
KR3	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM					
KR32	2001-000331	R-CARBON;12KOHM,5%,1/8W,AA,TP,1.8X3.2MM					
KR33	2001-000977	R-CARBON;8.2KOHM,5%,1/8W,AA,TP,1.8X3.2MM					
KR34	2001-000331	R-CARBON;12KOHM,5%,1/8W,AA,TP,1.8X3.2MM					
KR35	2001-000977	R-CARBON;8.2KOHM,5%,1/8W,AA,TP,1.8X3.2MM					
KR4	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM					
KSW1	3404-000160	SWITCH-TACT;12V,50mA,160gf~50gf,6.55x7.					
KVR4	2101-001054	VR-ROTARY;10KOHM,20%,1/20W,SIDE					
702	AH92-00331A	ASSY-PCB-KEY PLAY;DVD-N999,KEY-PLAY					
CON21	AH39-00188A	LEAD CONNECTOR-ASSY;-,,-,,-,5100					
FSW1	3404-000165	SWITCH-TACT;12V,50mA,160gf,6x6mm,SPST					
FSW2	3404-000165	SWITCH-TACT;12V,50mA,160gf,6x6mm,SPST					
FSW3	3404-000165	SWITCH-TACT;12V,50mA,160gf,6x6mm,SPST					
FSW4	3404-000165	SWITCH-TACT;12V,50mA,160gf,6x6mm,SPST					
FSW7	3404-000165	SWITCH-TACT;12V,50mA,160gf,6x6mm,SPST					
FSW8	3404-000165	SWITCH-TACT;12V,50mA,160gf,6x6mm,SPST					
JOG01	AC21-12001A	JOG-SHUTTLE DIAL;-,,-,SRGPPJ-012A					
PD1	0601-000497	LED:ROUND,GRN,3.1mm,565nm					
202	AH92-00035A	ASSY-PCB-DECK;DP-3,-					
CN1	3708-001081	CONNECTOR-FPC/FC/PIC;11P,1mm,STRAIGHT,SN					
CN2	3708-001001	CONNECTOR-FPC/FC/PIC;20P,1mm,SMD-A,SN					
CN4	3708-001108	CONNECTOR-FPC/FC/PIC;8P,1.0MM,ANGLE,SN					
CN5	3708-001084	CONNECTOR-FPC/FC/PIC;40P,1.25mm,ANGLE,SN					
DC1	2203-000208	C-CERAMIC,CHIP;100nF,10%,50V,X7R,TP,3216					
DC2	2203-000208	C-CERAMIC,CHIP;100nF,10%,50V,X7R,TP,3216					
DC3	2203-000208	C-CERAMIC,CHIP;100nF,10%,50V,X7R,TP,3216					
DC4	2203-000612	C-CERAMIC,CHIP;22nF,10%,50V,X7R,TP,3216					
DD1	0401-000101	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,					
DE1	2401-001507	C-AL;47uF,20%,16V,GP,TP,6.3x5.5					
DE2	2401-001507	C-AL;47uF,20%,16V,GP,TP,6.3x5.5					
DL1	3301-000325	CORE-FERRITE BEAD;AB,3.2x2.5x1.3mm,,-					
DLED	0601-001372	LED:ROUND,GRN,3.5MM,621NM					
DR1	2007-000800	R-CHIP;3600OHM,5%,1/8W,DA,TP,3216					
DR2	2007-000451	R-CHIP;1800OHM,5%,1/8W,DA,TP,3216					
DR3	2007-000451	R-CHIP;1800OHM,5%,1/8W,DA,TP,3216					
DR4	2007-000303	R-CHIP;10KOHM,5%,1/8W,DA,TP,3216					
DR5	2007-000303	R-CHIP;10KOHM,5%,1/8W,DA,TP,3216					
SW1	AH34-30001A	SWITCH-PUSH;2EA,6.65X7.5,-,DC5V					
SW2	3403-001001	SWITCH-PUSH;5V,5mA,-,OFF-ON					
SW3	3408-000323	SWITCH-SLIDE;12Vdc,100mA,SPDT,OFF-ON,-					

9. Block Diagram



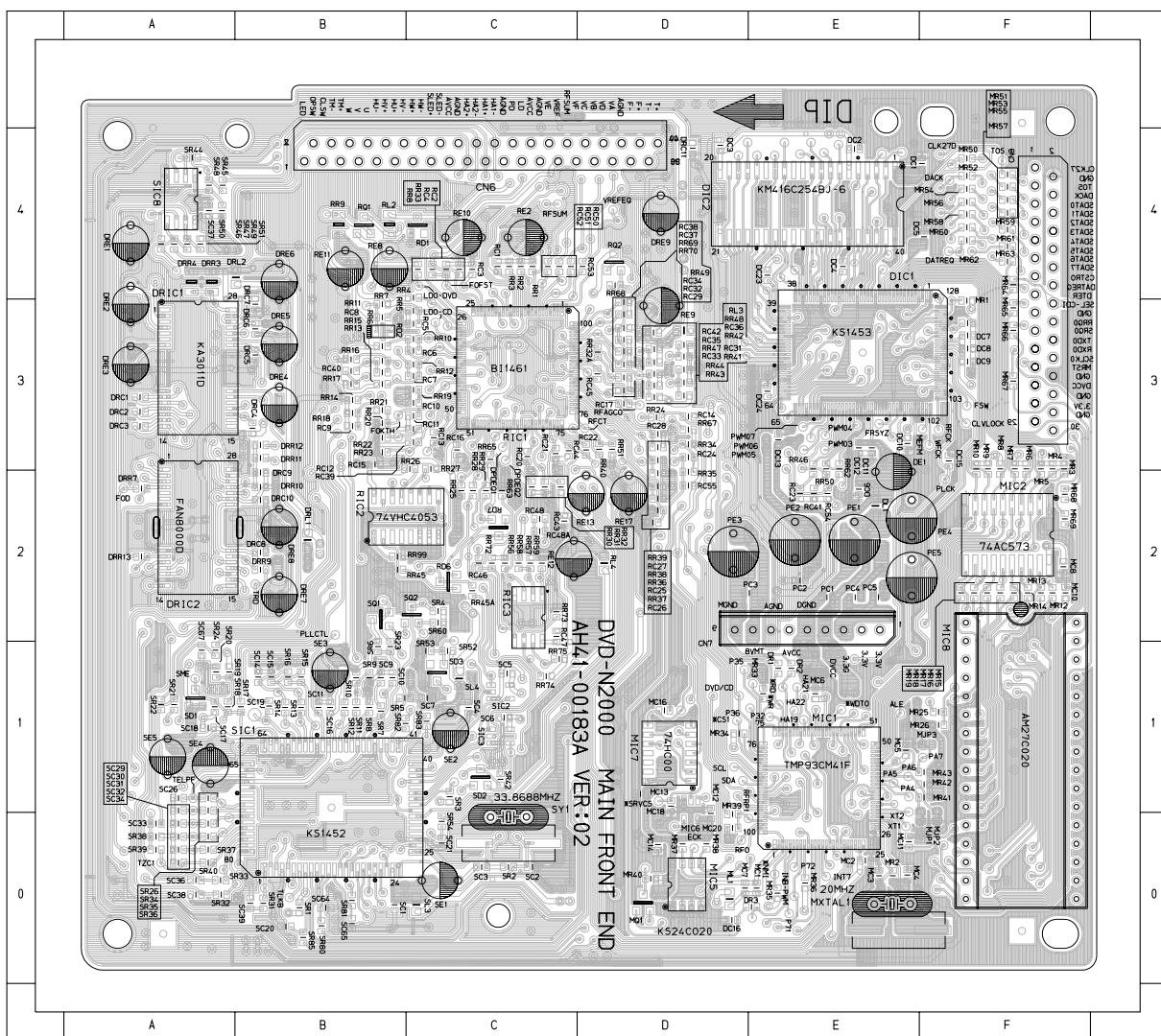
MEMO

10. PCB Diagrams

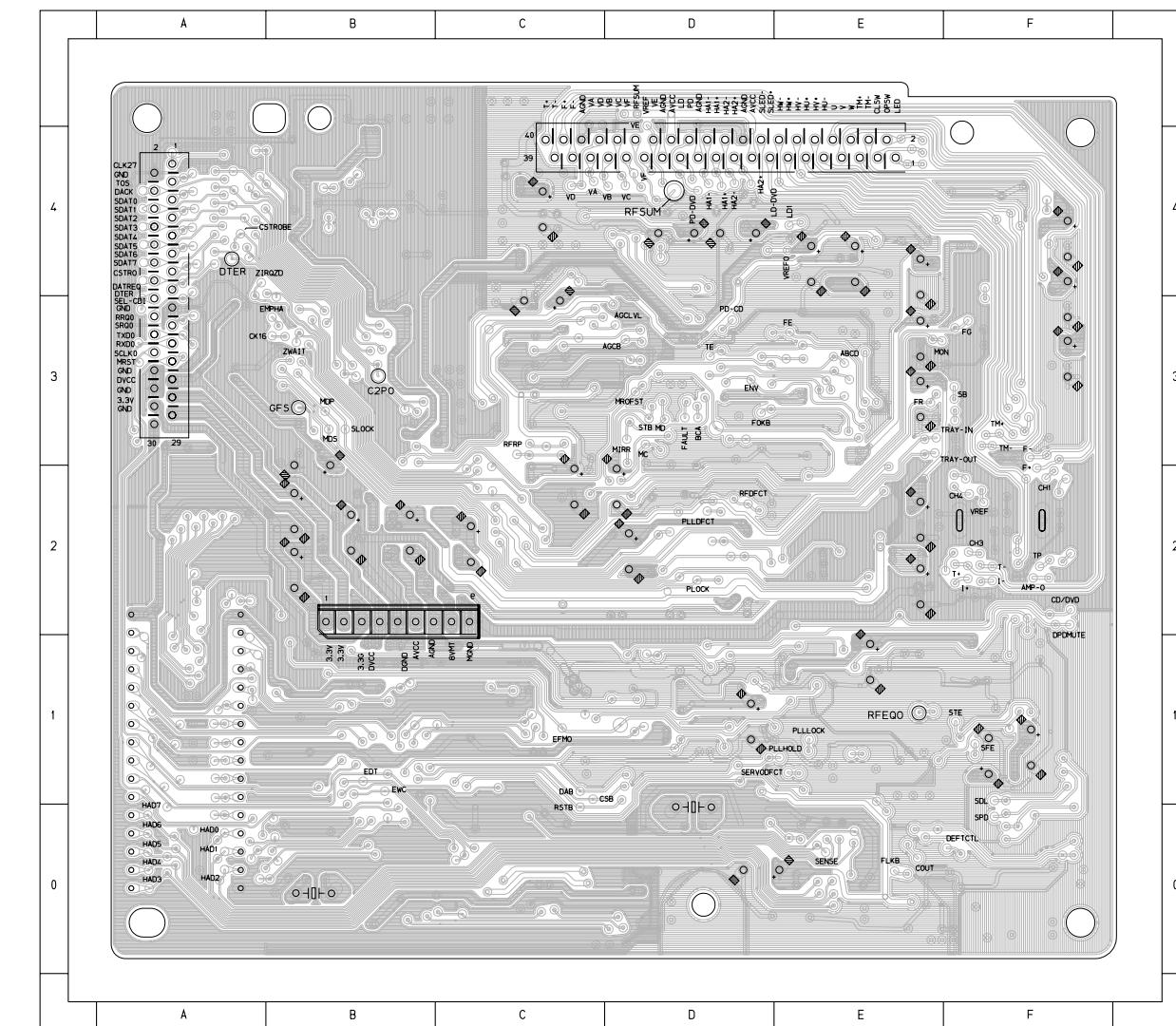
10-1 Main-Front	10-2
10-2 Main-Back	10-3
10-3 Jack	10-4
10-4 Key-Power	10-5
10-5 Key-Play	10-5
10-6 Deck	10-5

10-1 Main-Front

COMPONENT SIDE

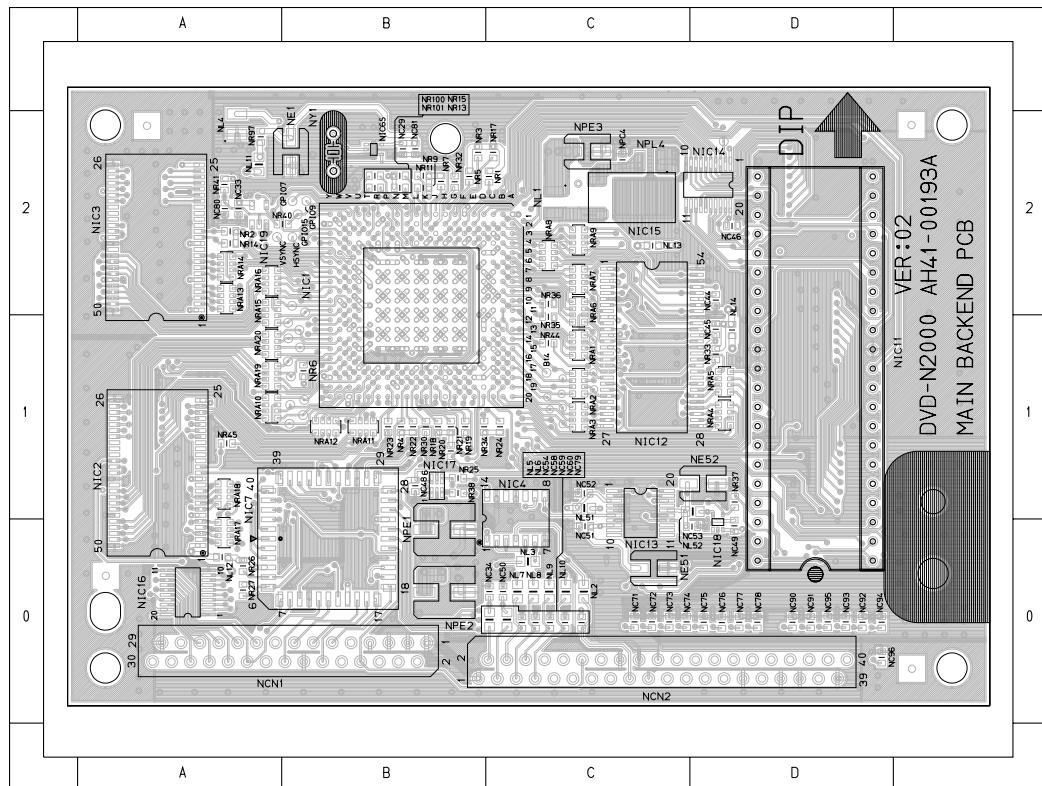


SOLDER SIDE

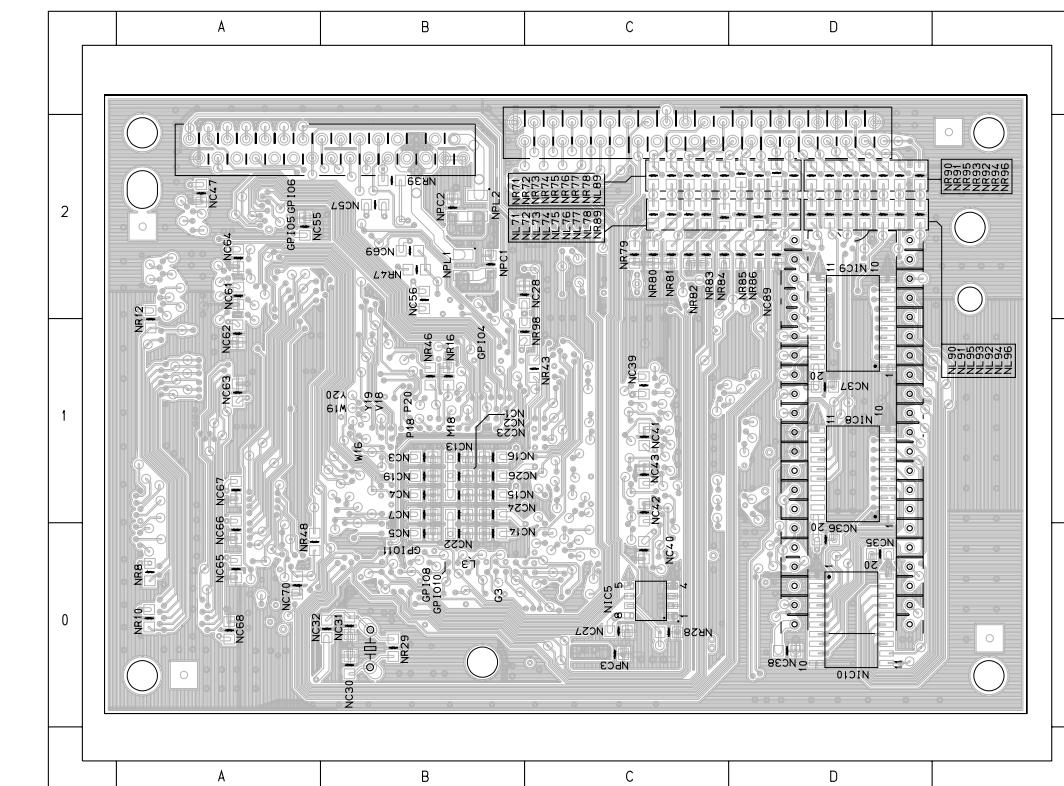


10-2 Main-Back

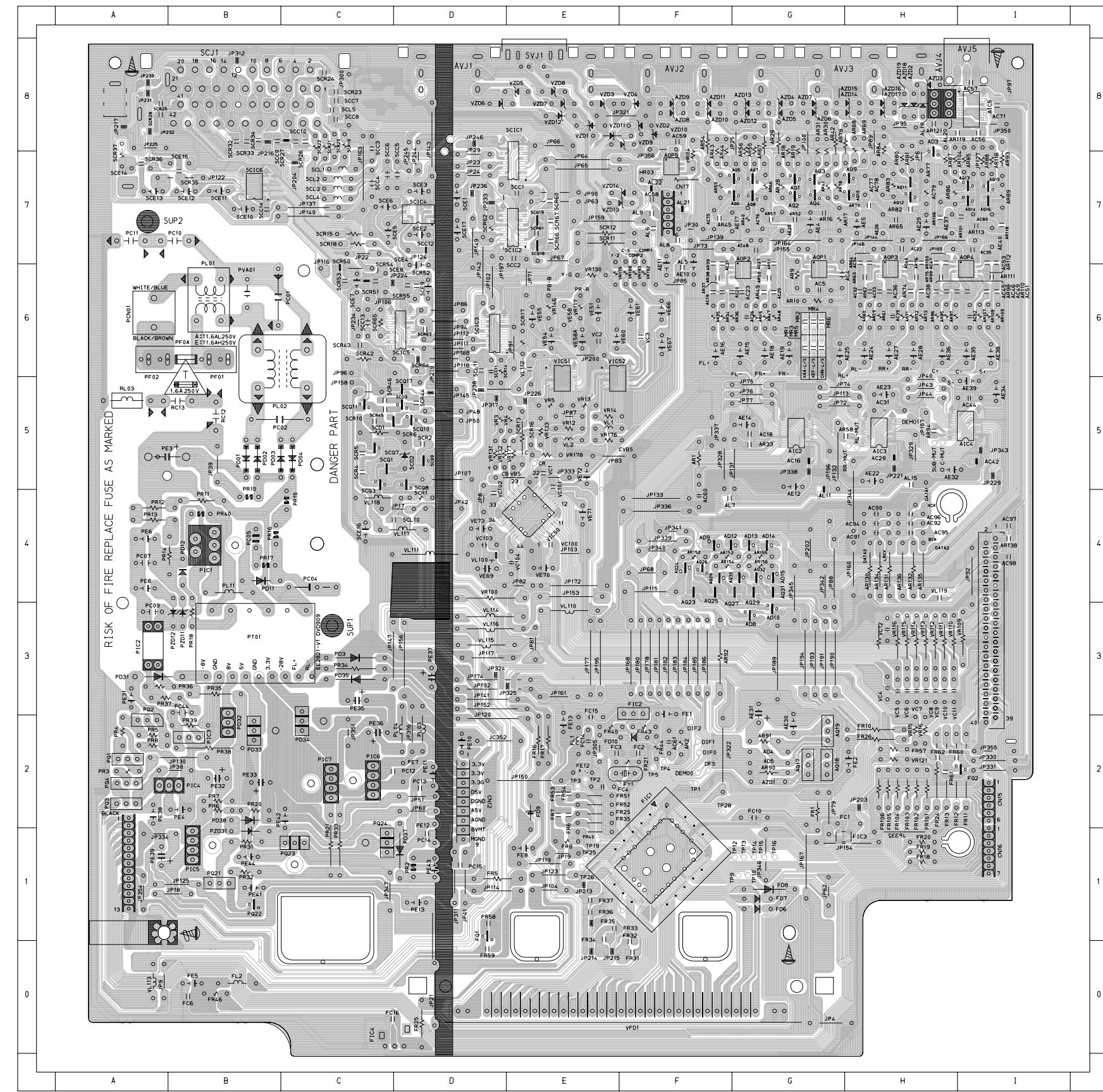
COMPONENT SIDE



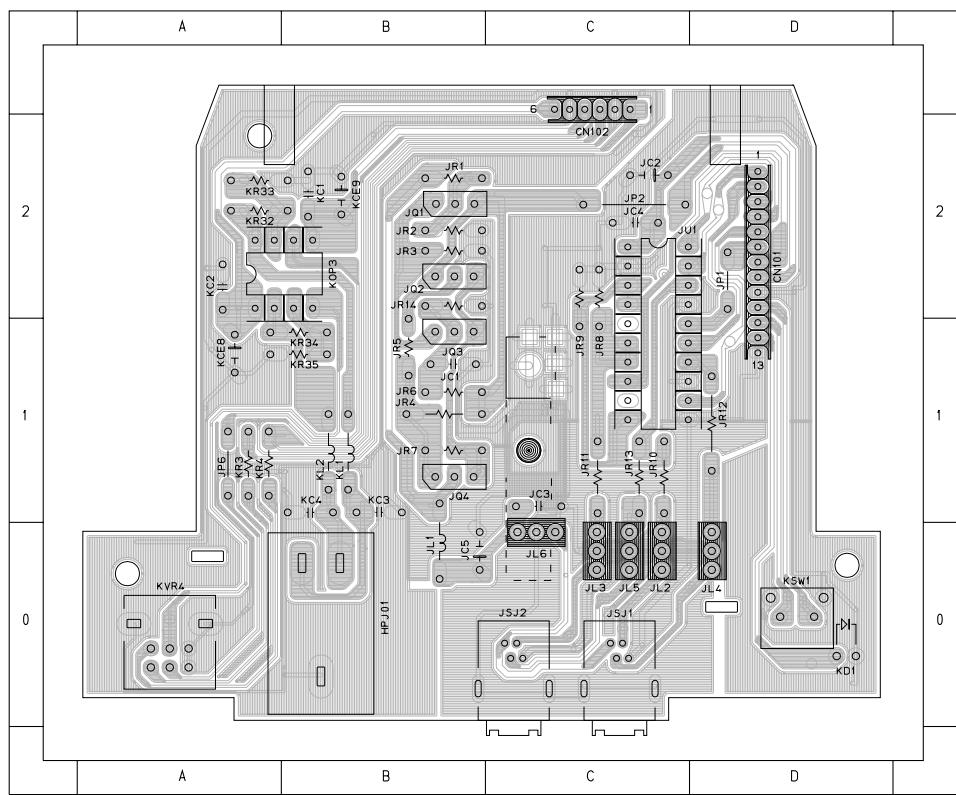
SOLDER SIDE



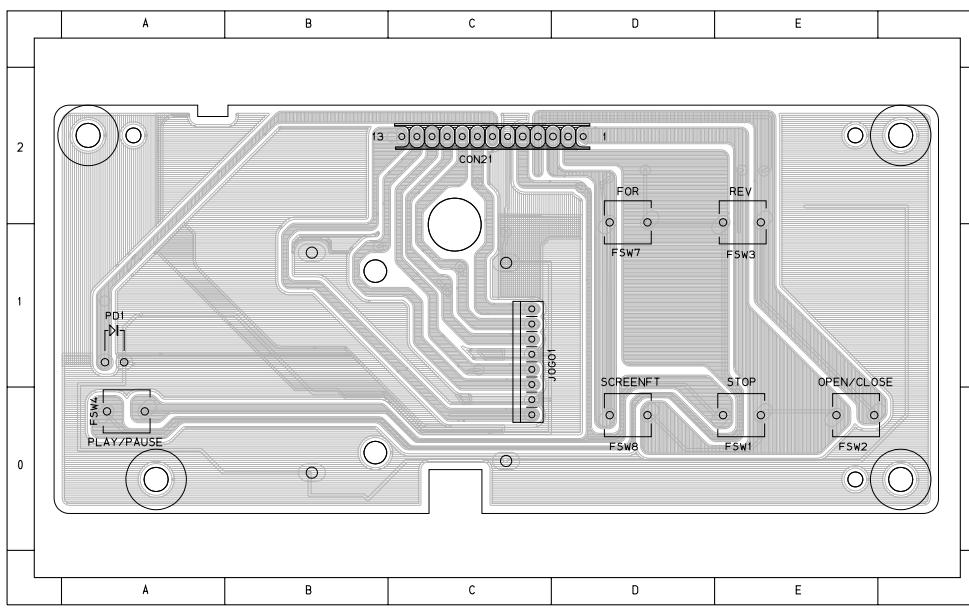
10-3 Jack



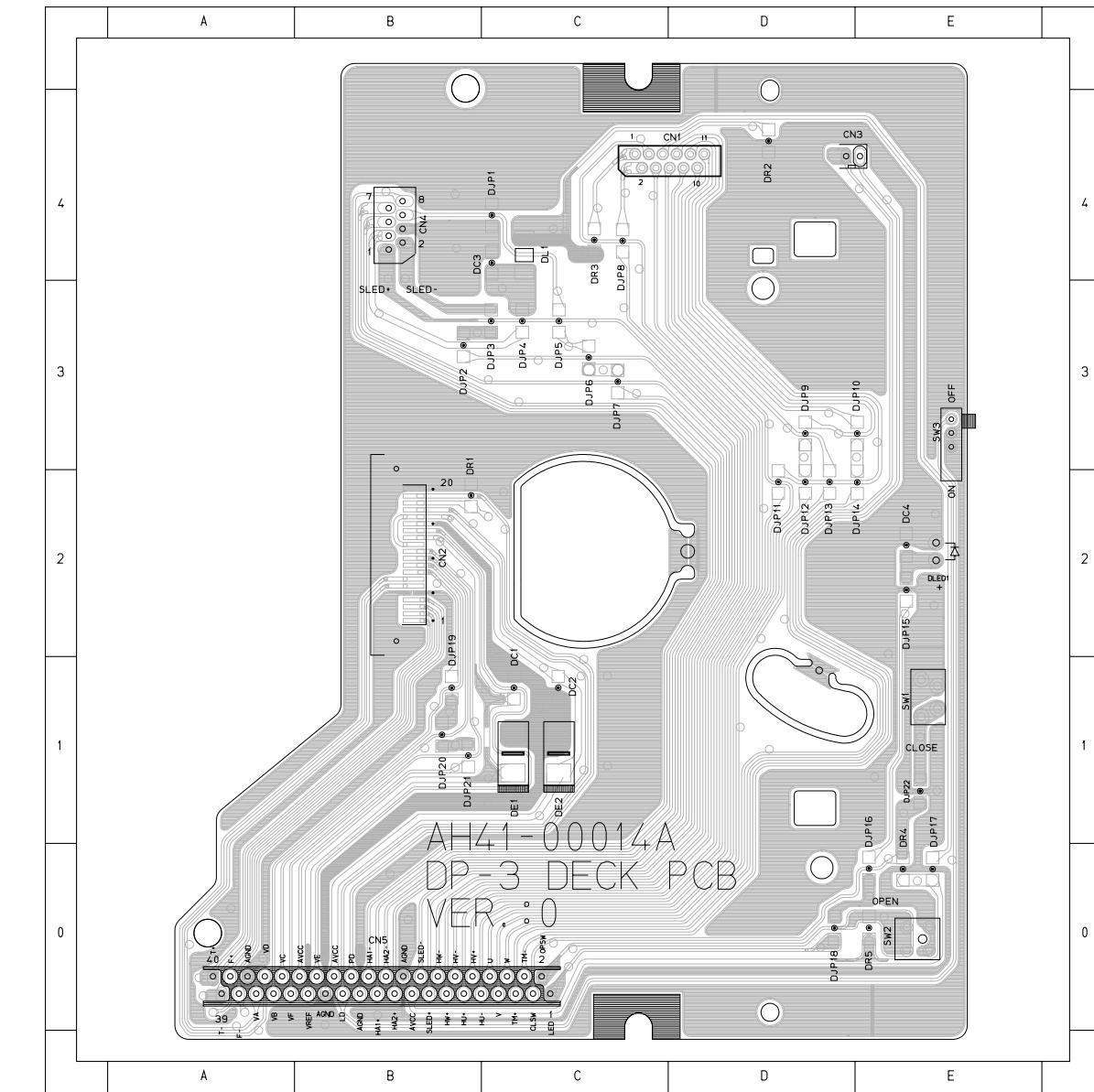
10-4 Key-Power



10-5 Key-Play

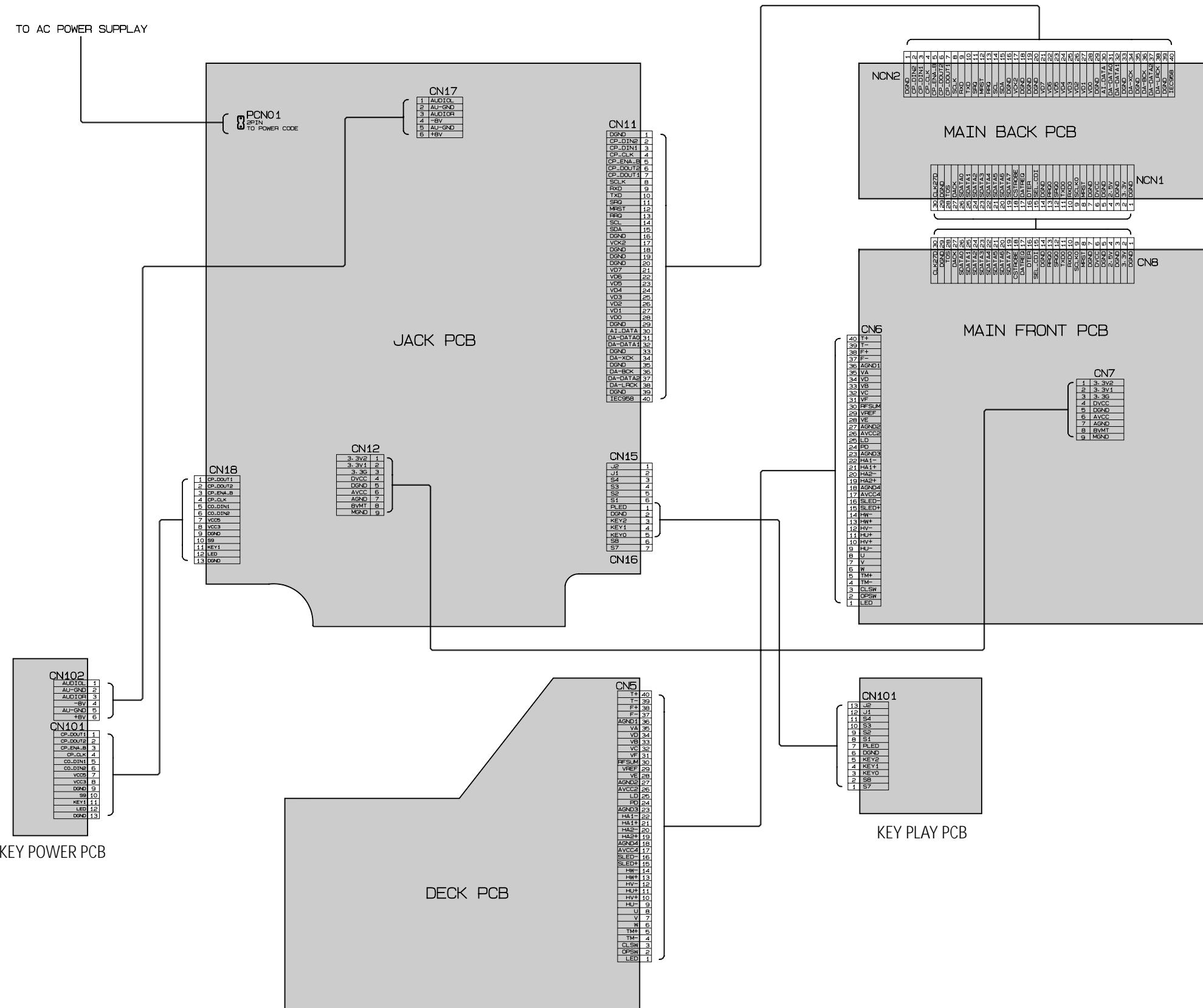


10-6 Deck



MEMO

11. Wiring Diagram

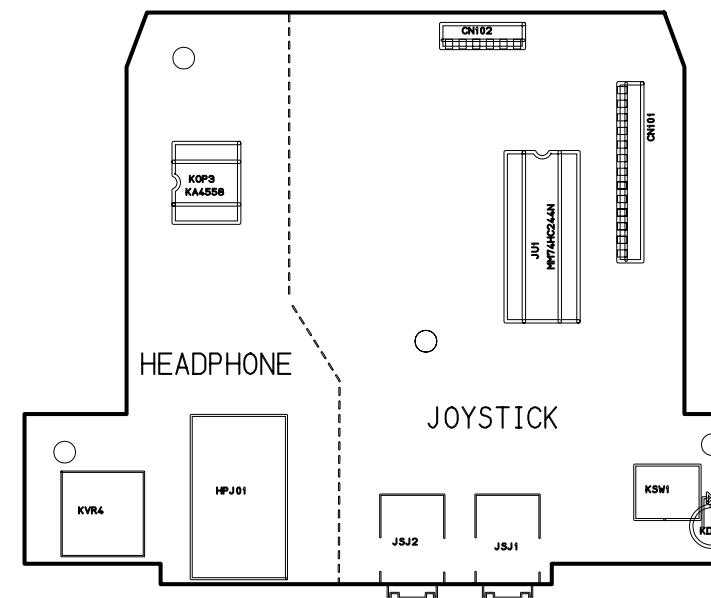
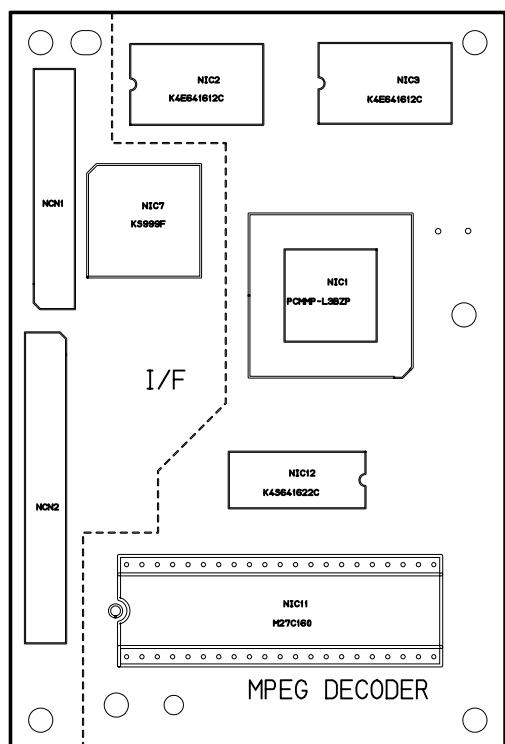
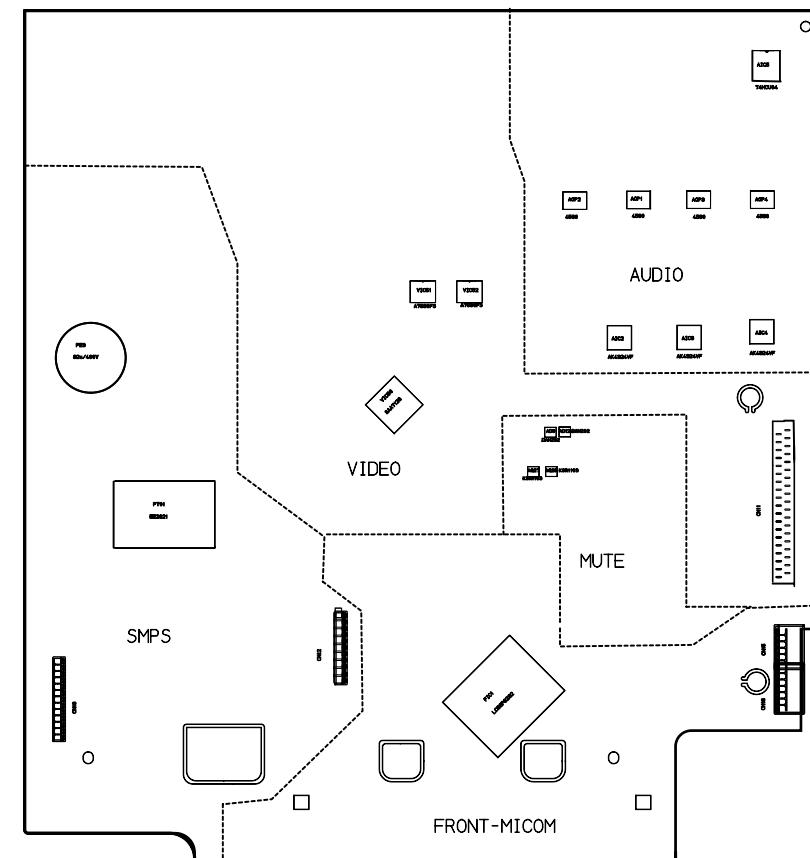
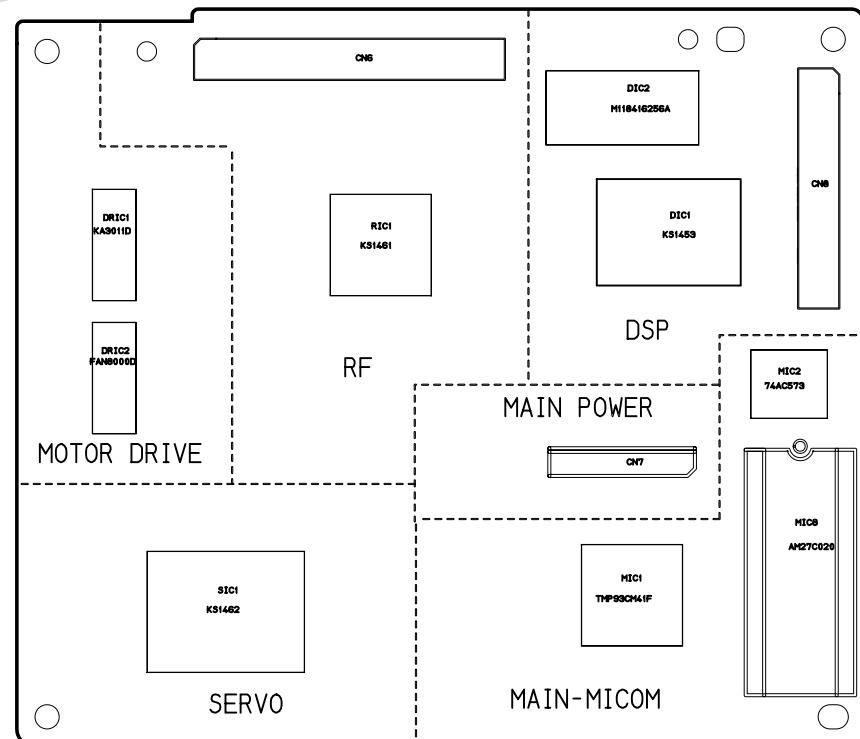


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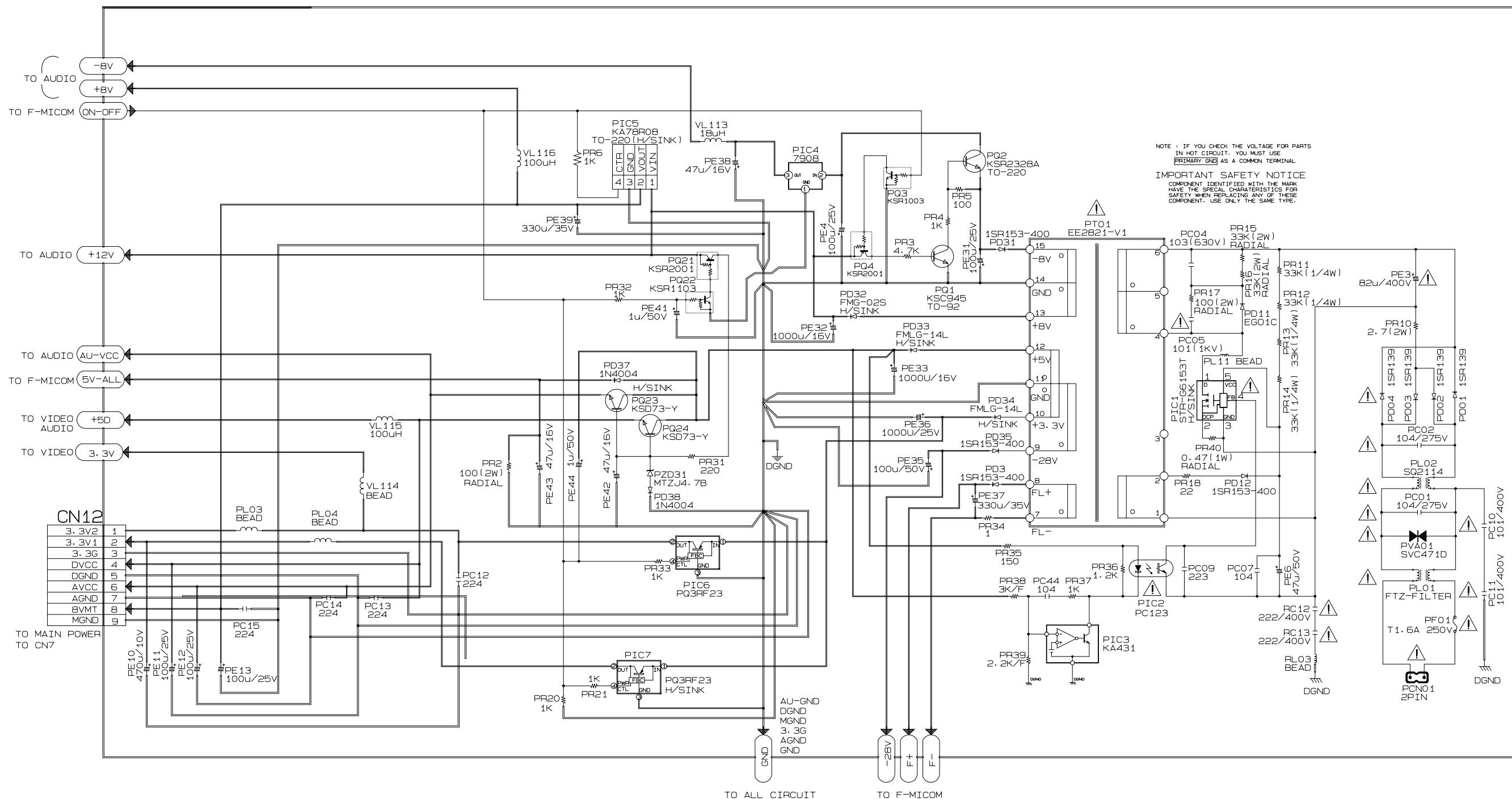
12. Schematic Diagrams

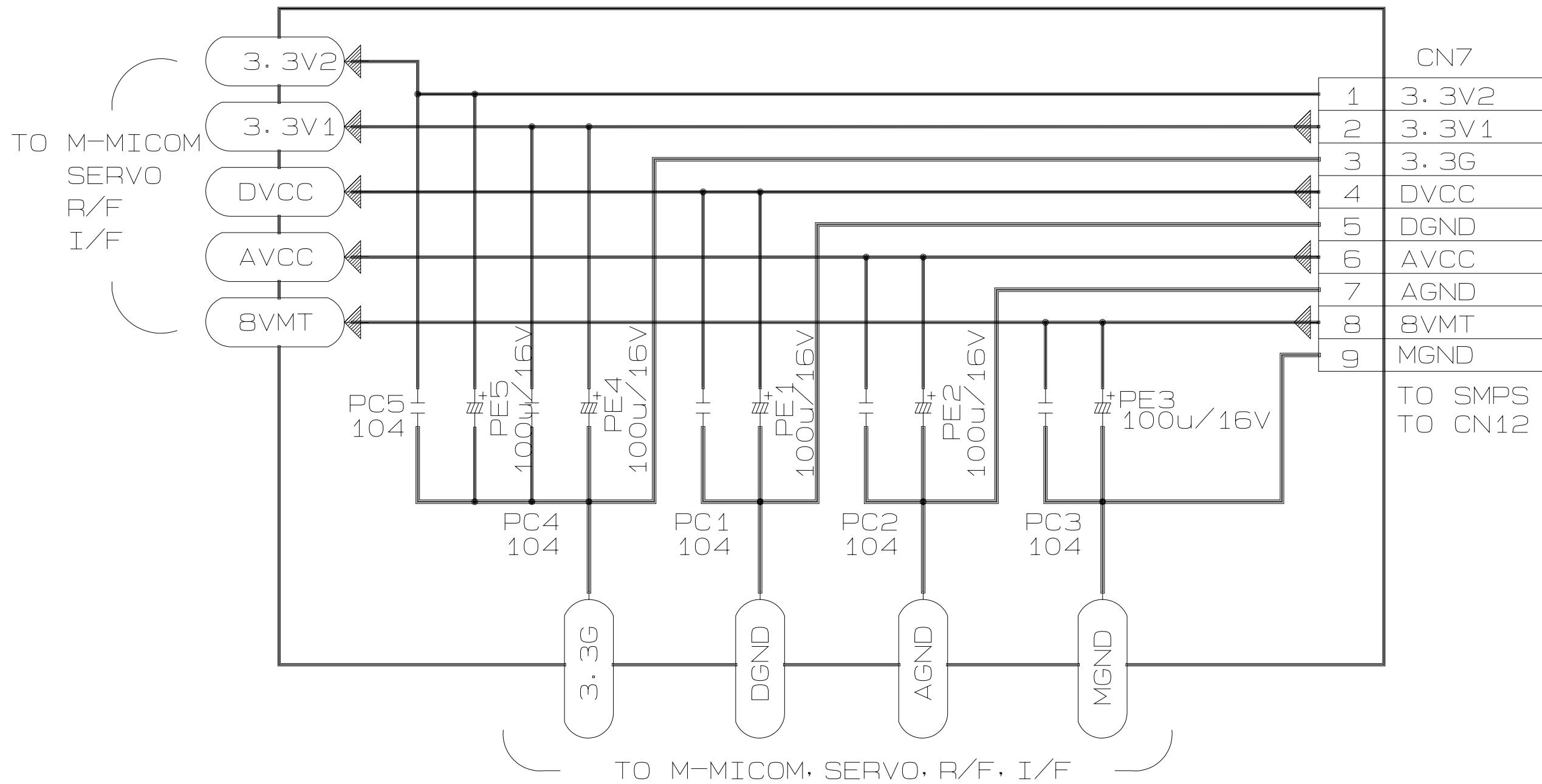
12-1 S.M.P.S.	-----	12-3
12-2 Main-Power Supply	-----	12-4
12-3 Front-Micom/VFD Display	-----	12-5
12-4 Video	-----	12-6
12-5 Audio	-----	12-7
12-6 Component	-----	12-8
12-7 Main-Micom	-----	12-9
12-8 R/F	-----	12-10
12-9 Servo	-----	12-11
12-10 DSP	-----	12-12
12-11 I/F	-----	12-13
12-12 MPEG Decoder	-----	12-14
12-13 Joy Stick	-----	12-16
12-14 Headphone	-----	12-17
12-15 Key Play	-----	12-18
12-16 Deck	-----	12-19
12-17 Remote-Control	-----	12-20

Block Identification of PCB

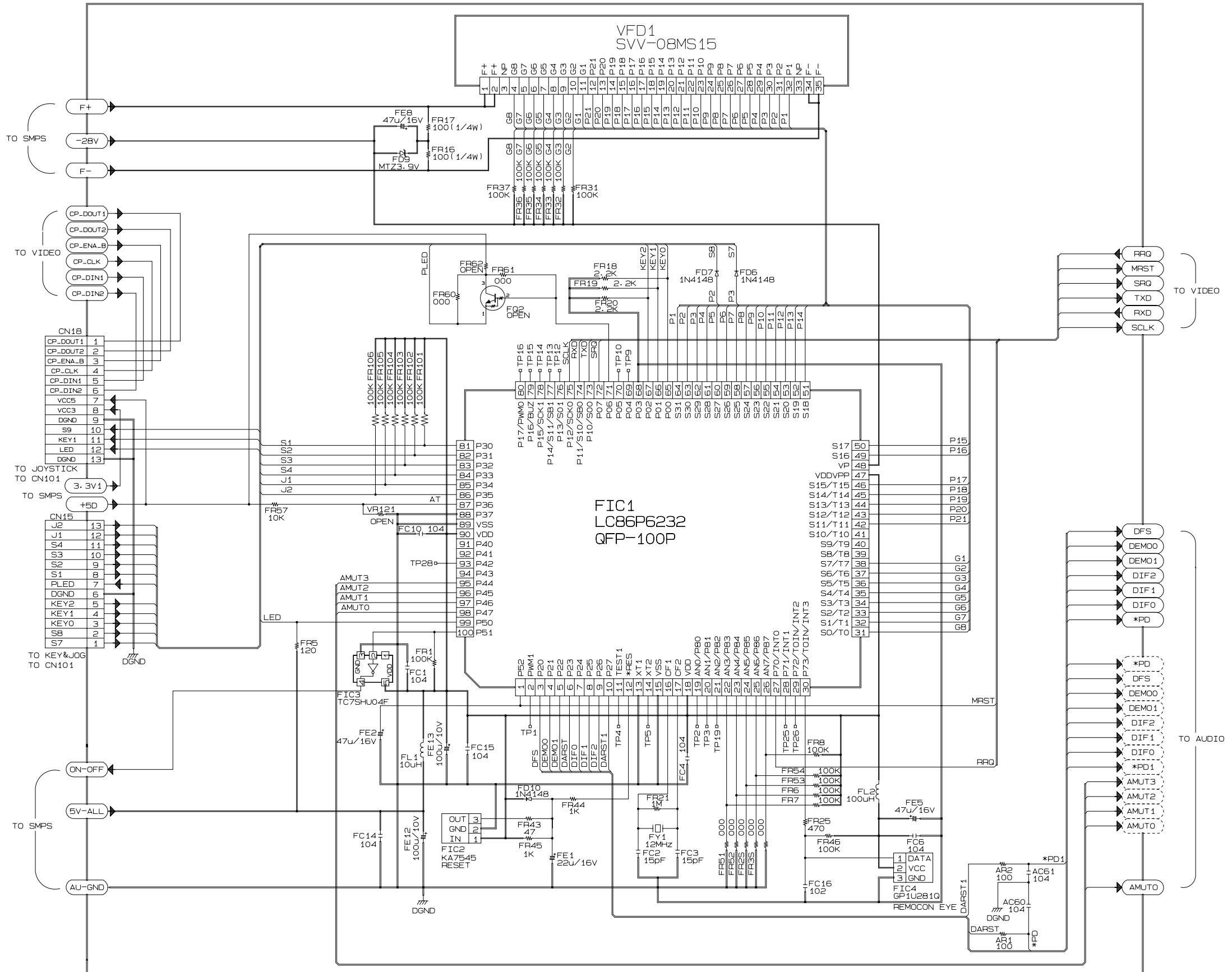


12-1 S.M.P.S.

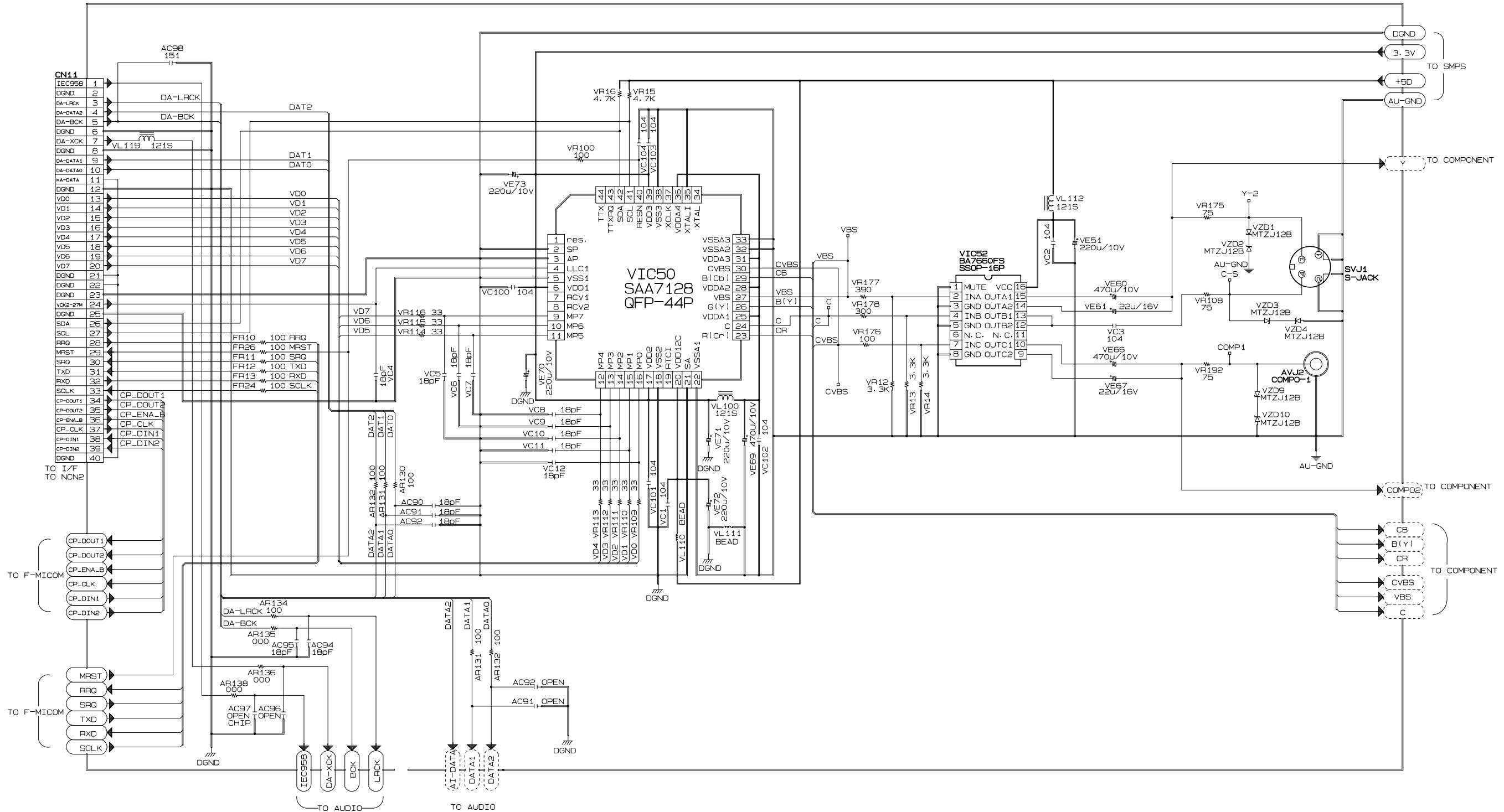


12-2 Main-Power Supply

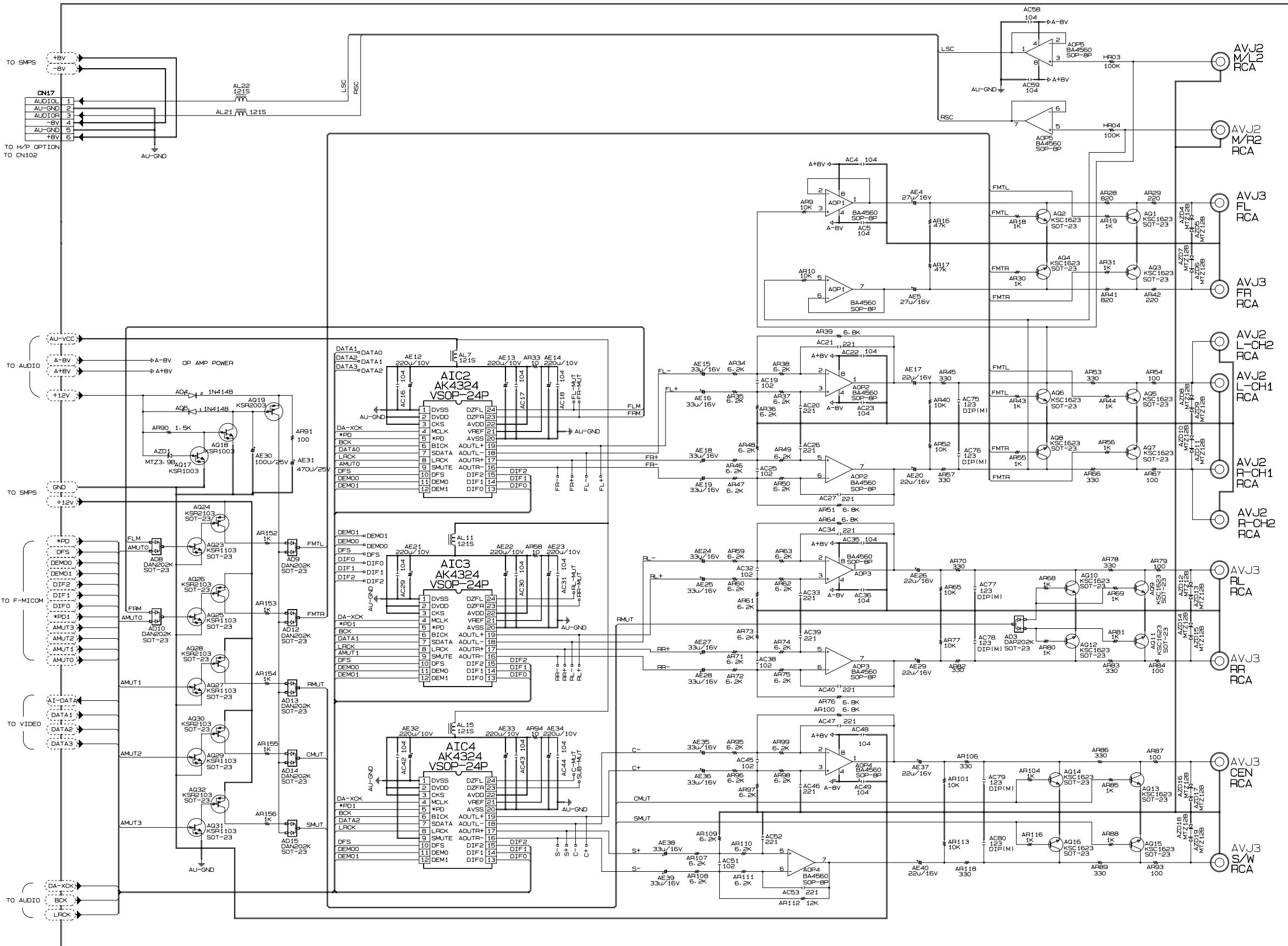
12-3 Front-Micom/VFD Display



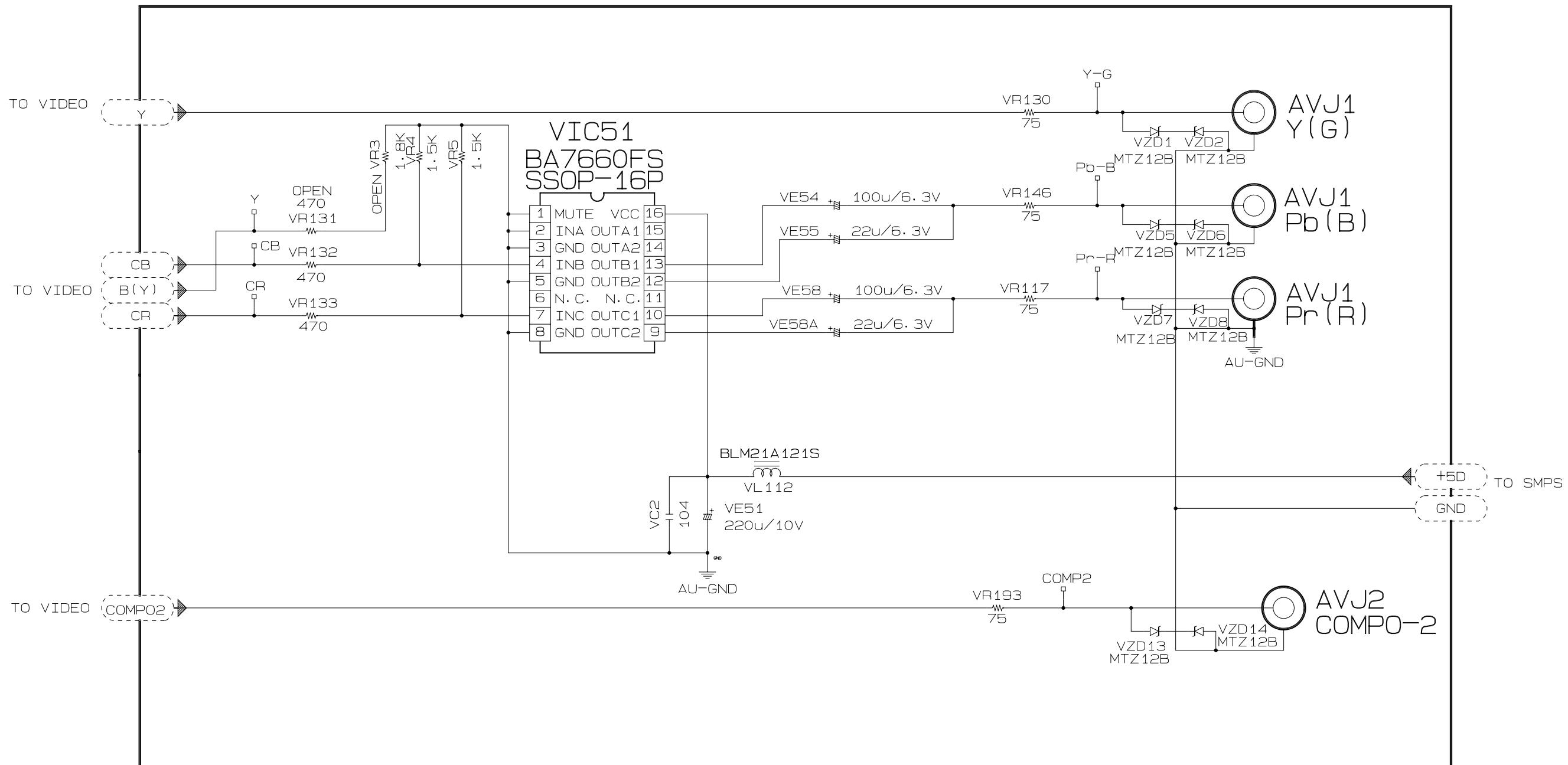
12-4 Video



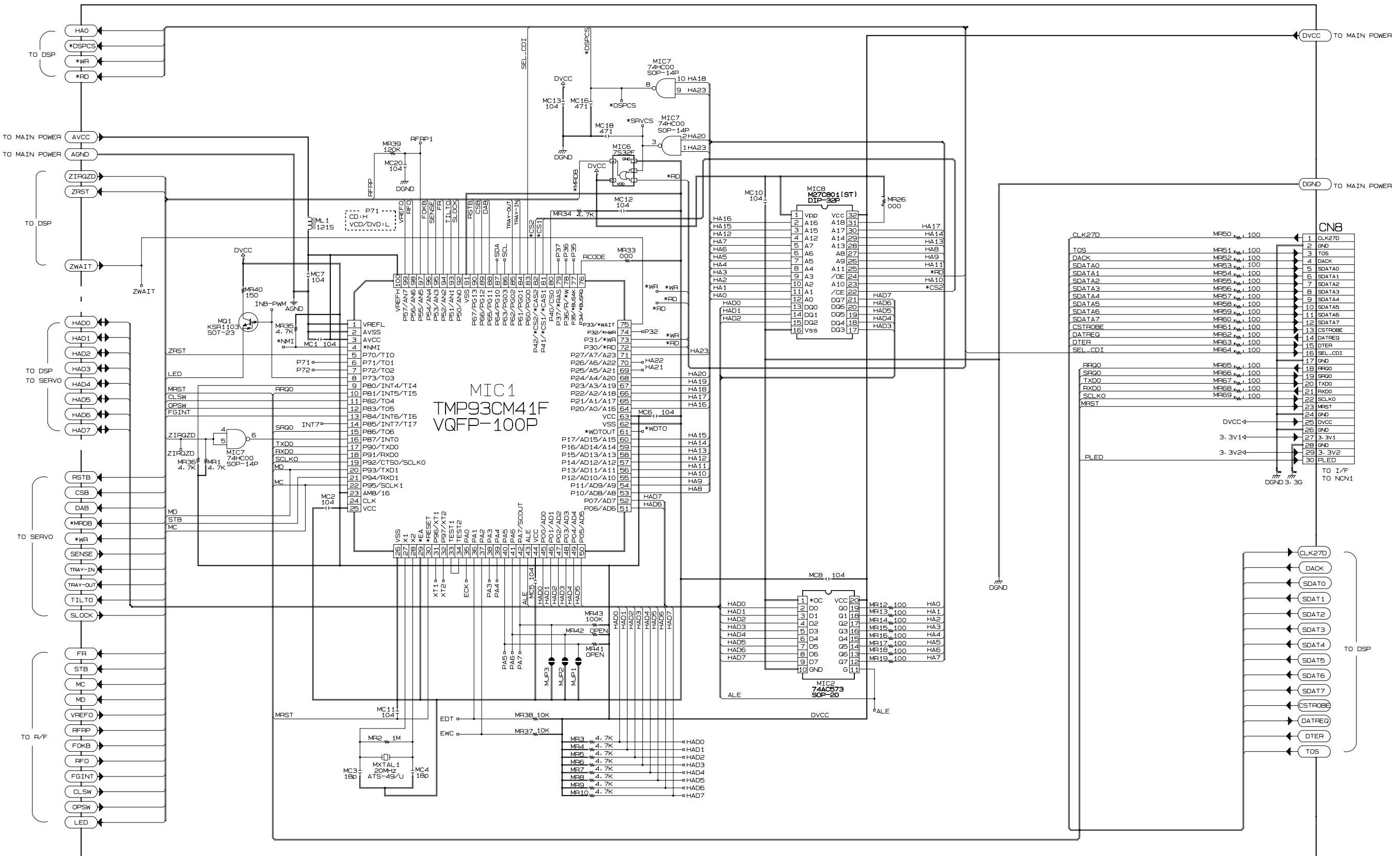
12-5 Audio



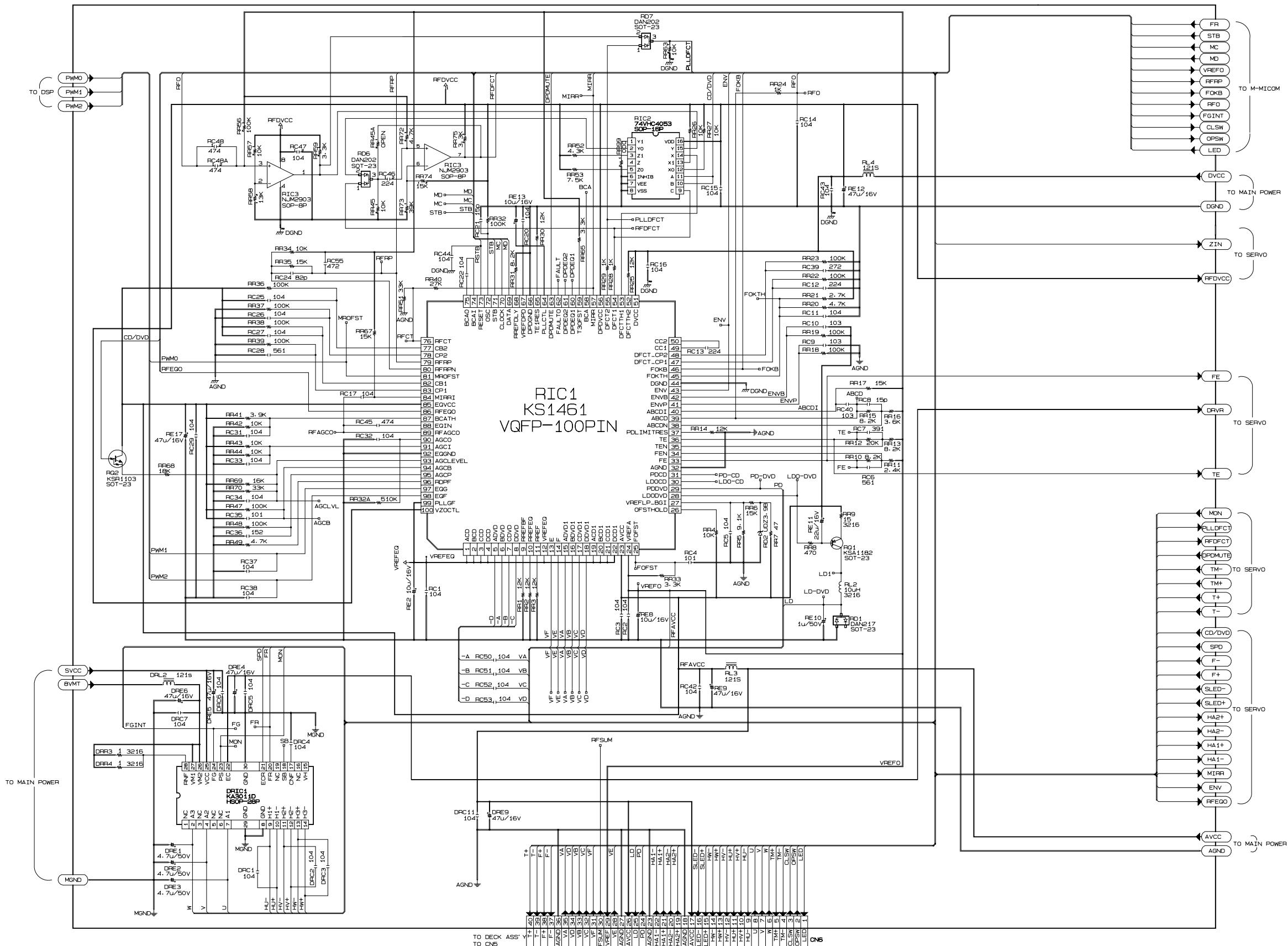
12-6 Component



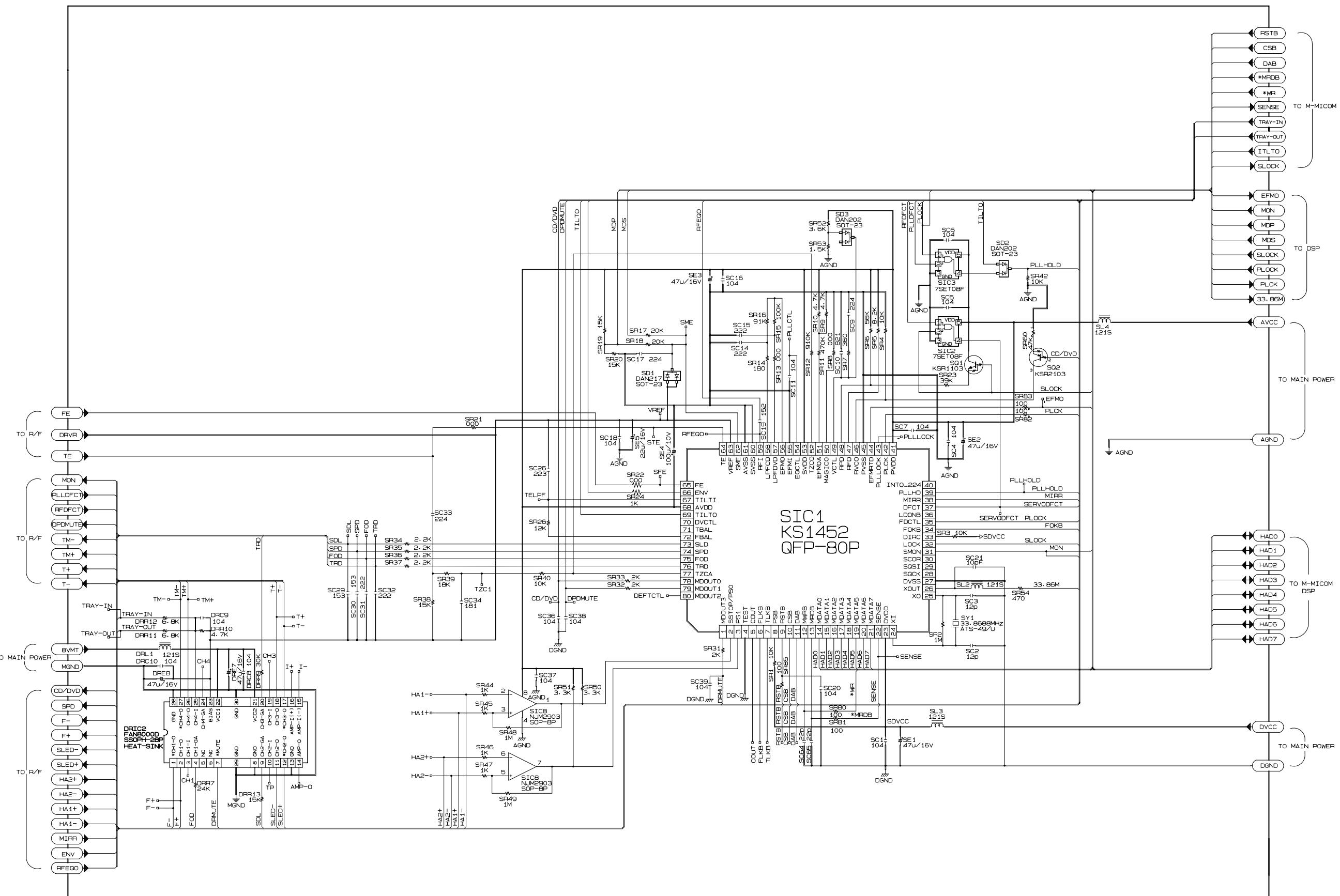
12-7 Main-Micom



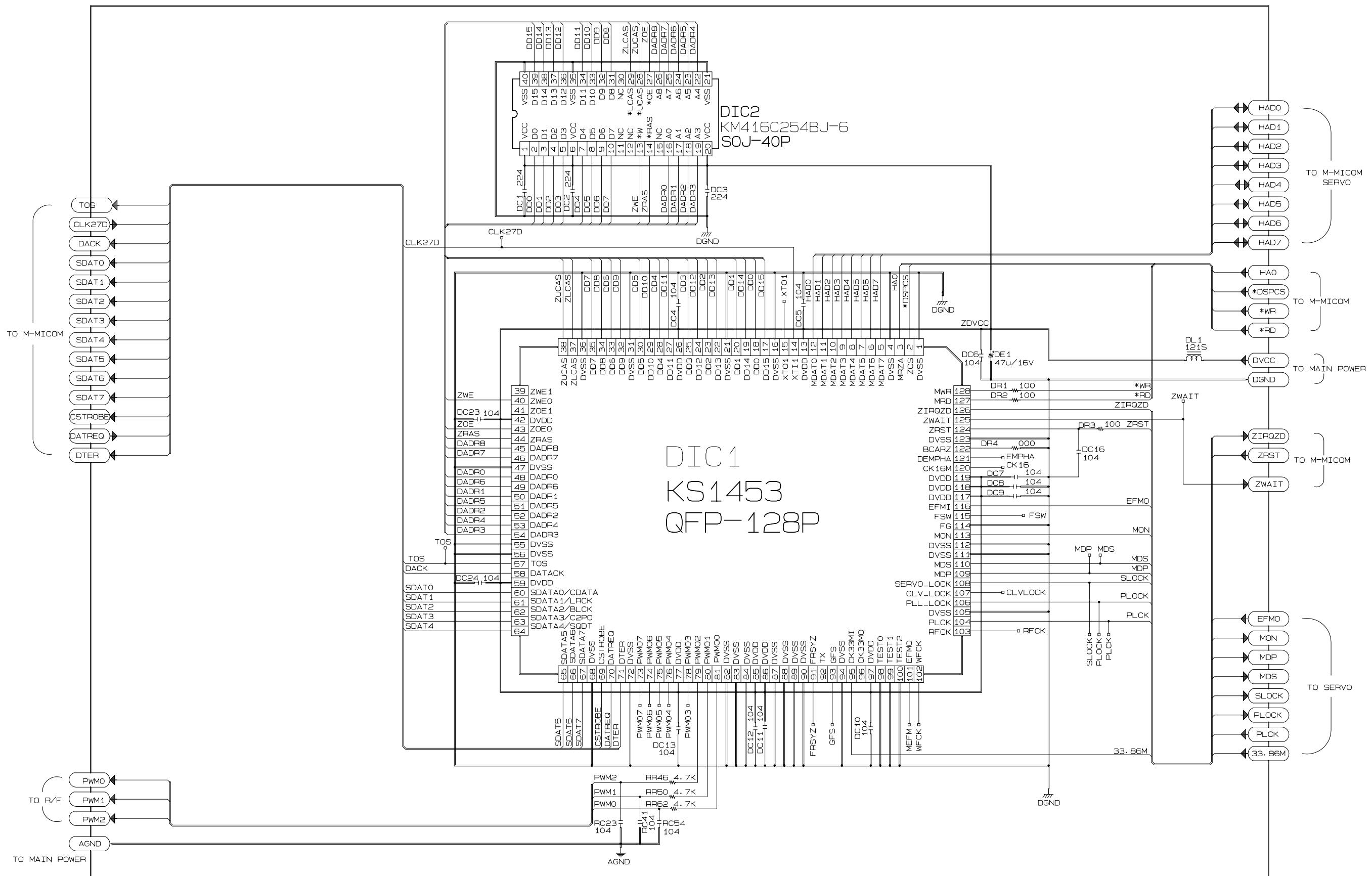
12-8 R/F



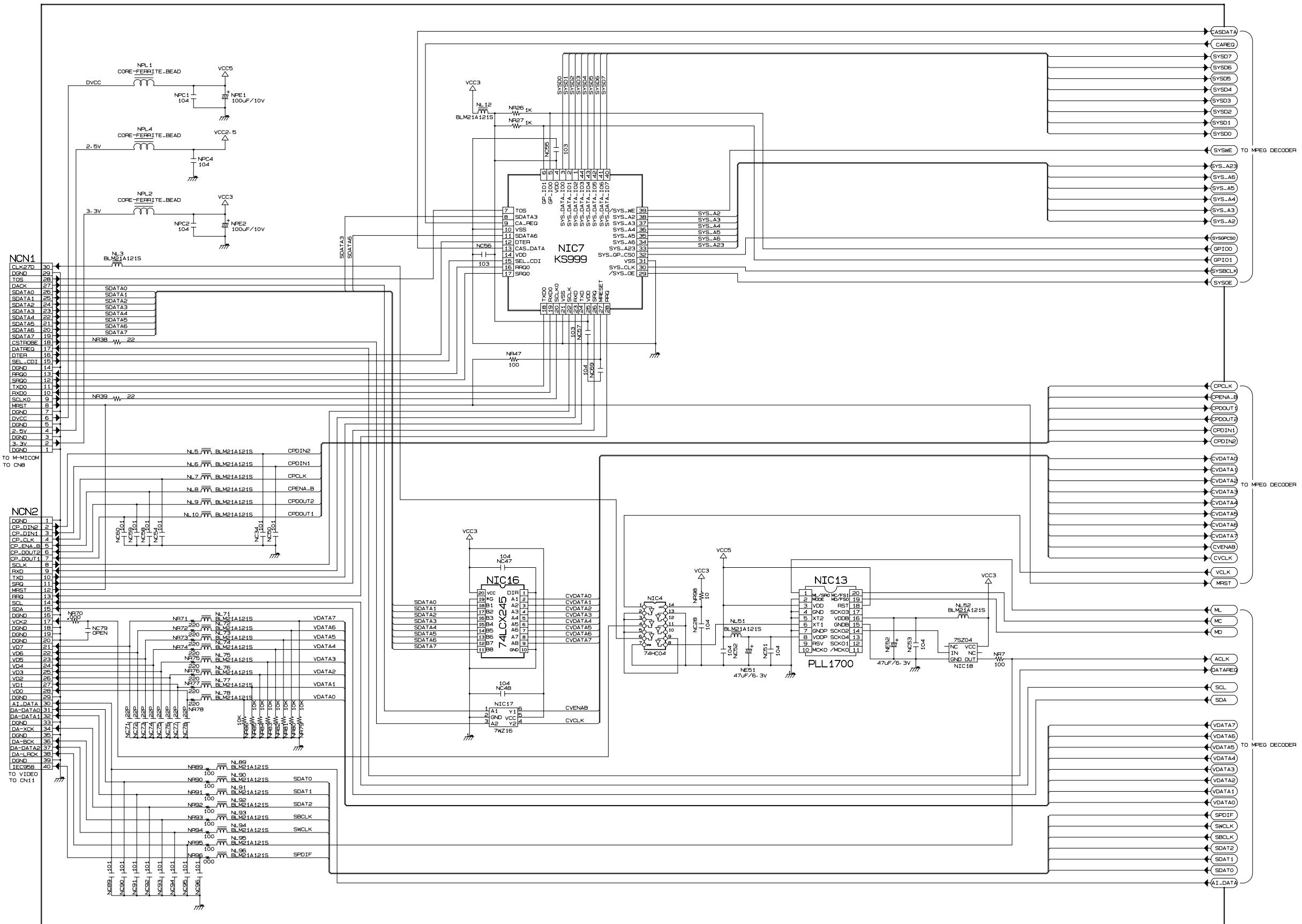
12-9 Servo



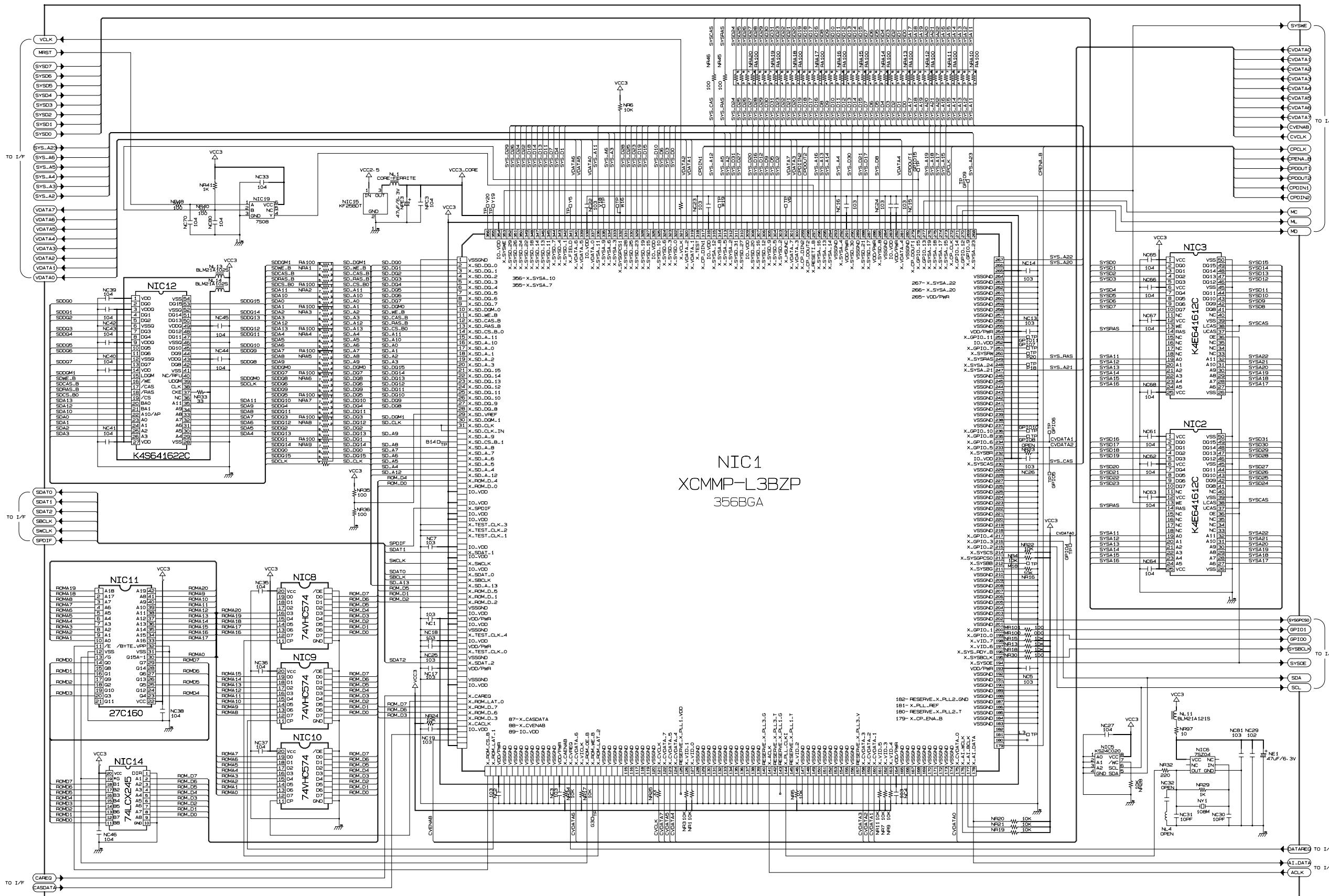
12-10 DSP



12-11 I/F



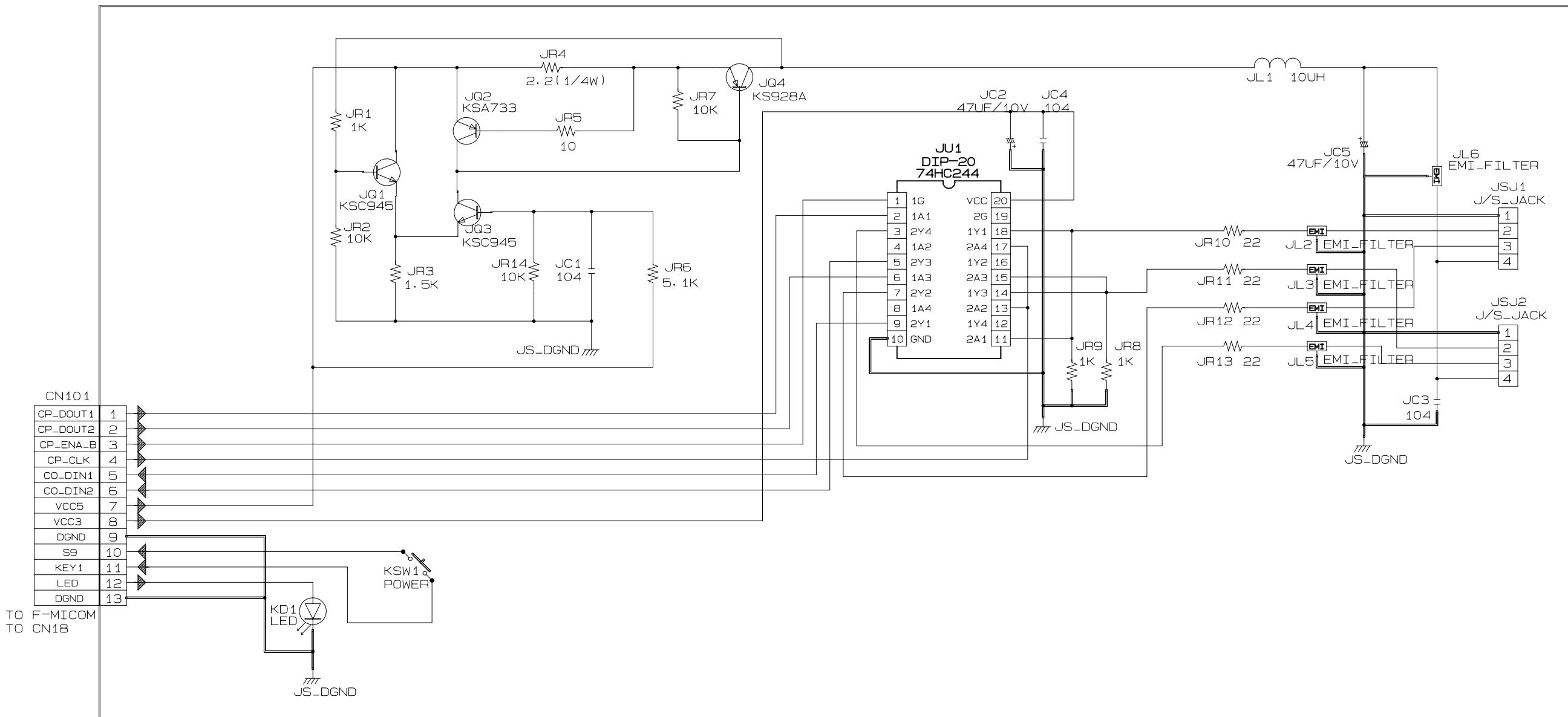
12-12 MPEG Decoder



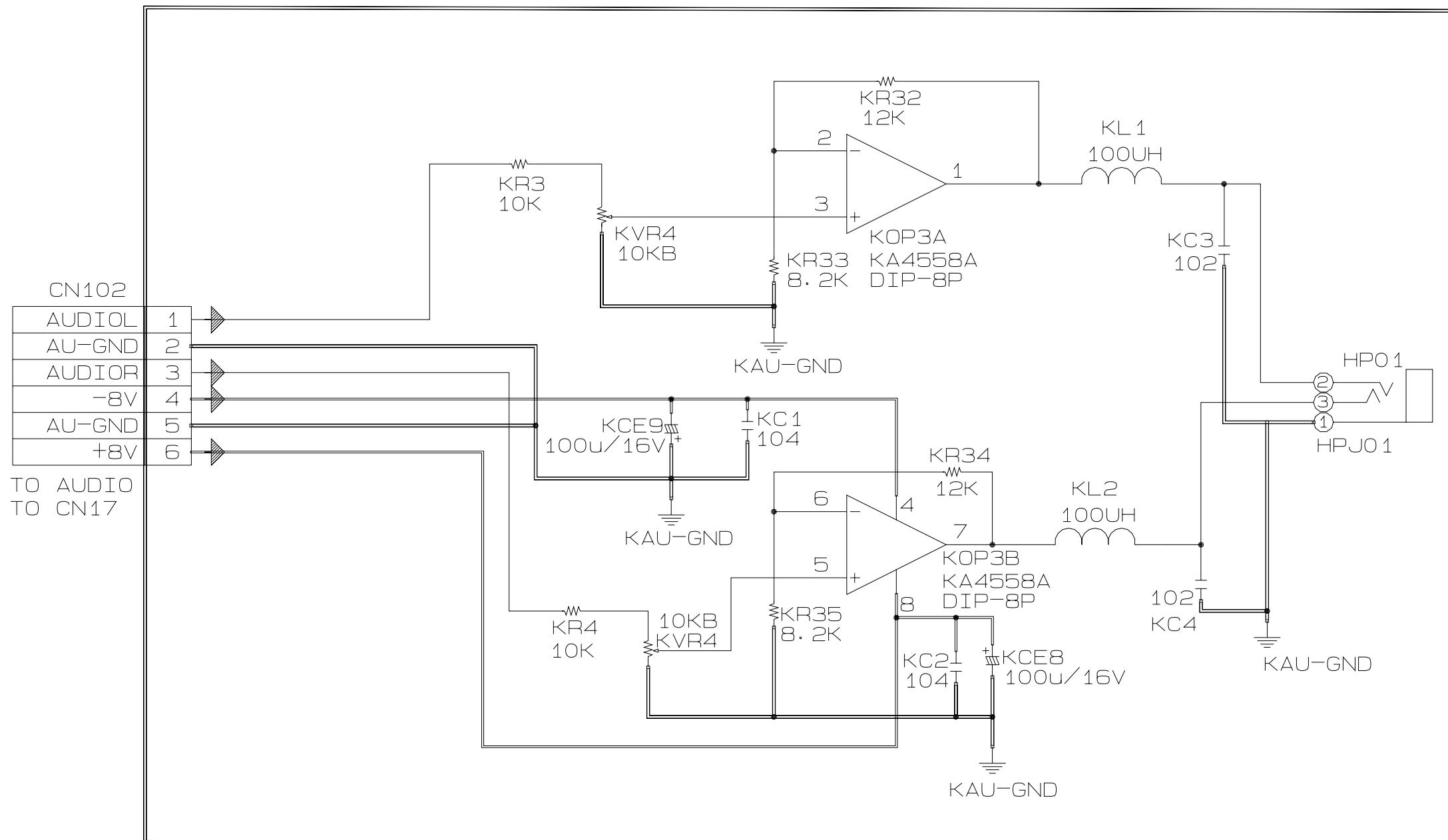
NIC1 ARIES PINOUT - Top View*** () : Schematic Diagram Pin Number**

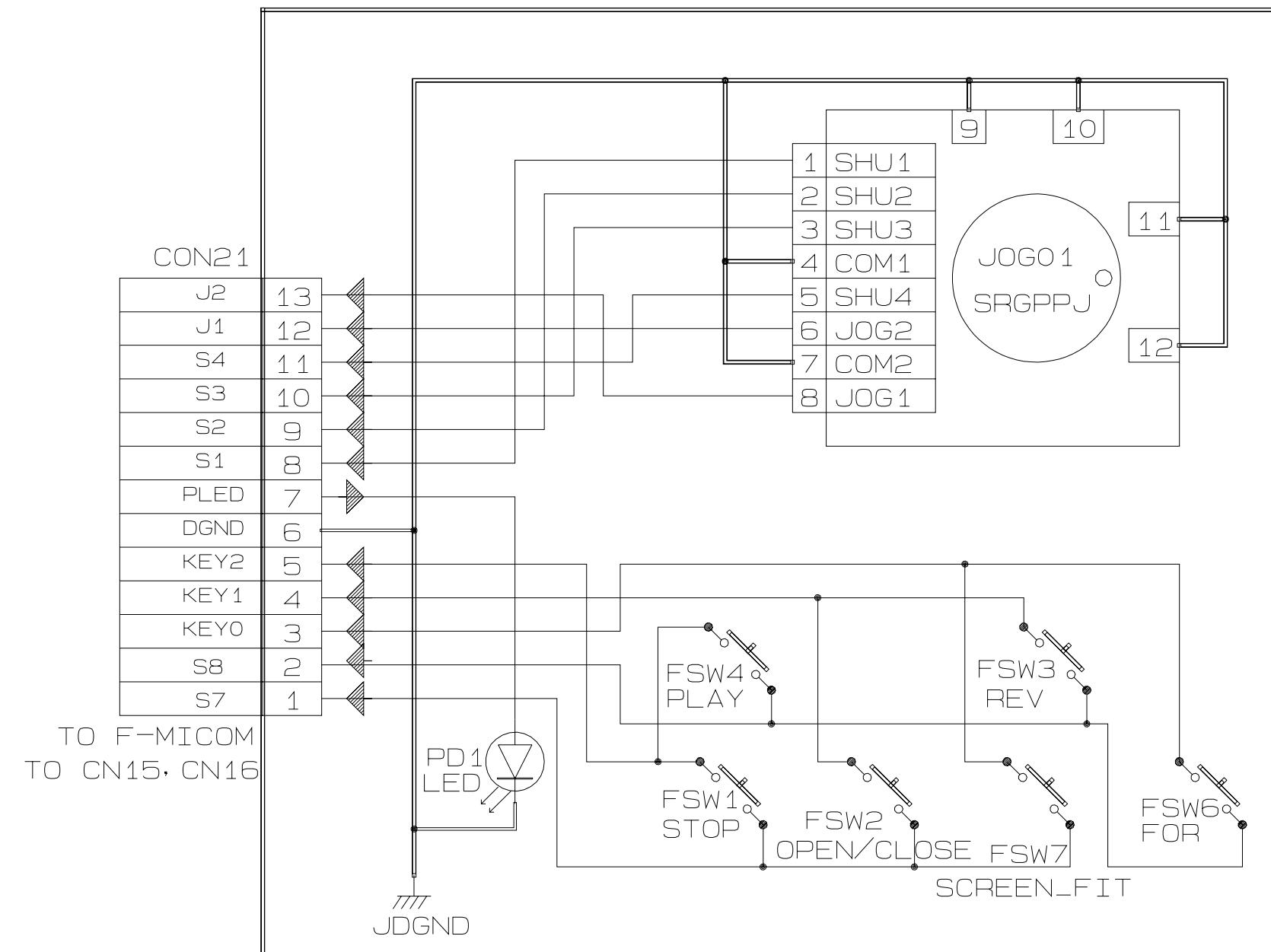
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A	(1) GND	(2) SD_DQ0	(3) SD_DQ1	(4) SD_DQ2	(5) SD_DQ3	(6) SD_DQ4	(7) SD_DQ5	(8) SD_DQ6	(9) SD_DQ7	(10) SD_DQM10	(11) SD_WE	(12) SD_CAS	(13) SD_RAS	(14) SD_CS0	(15) SD_A11	(16) SD_A10	(17) SD_A0	(18) SD_A1	(19) SD_A2	(20) SD_A3	A						
B	(21) SD_DQ15	(22) SD_DQ14	(23) SD_DQ13	(24) SD_DQ12	(25) SD_DQ11	(26) SD_DQ10	(27) SD_DQ9	(28) SD_VREF	(29) SD_DQM1	(30) SD_CLK	(31) SD_CLK_IN	(32) SD_A3	(33) SD_CS1	(34) SD_A8	(35) SD_A7	(36) SD_A6	(37) SD_A7	(38) SD_A4	(39) SD_A12	(40) SD_A12	B						
C	(41) ROM_D4	(42) ROM_D0	(43) VDD3_27	(44) RSVD_C4	(45) VDD3_25	(46) SPDIF	(47) VDD3_23	(48) TSET3	(49) TEST2	(50) TEST1	(51) RSVD_C12	(52) VDD3_13	(53) SDAT1	(54) VDD3_17	(55) SWCLK	(56) VDD3_15	(57) SDATO	(58) SBCLK	(59) SD_A13	(60) SD_A13	C						
D	(61) ROM_D5	(62) ROM_D1	(63) ROM_D2	(64) GND	(65) VDD3_26	(66) VDD_CORE	(67) GND	(68) TEST4	(69) VDD3_20	(70) VDD_CORE	(71) TEST0	(72) GND	(73) SDAT2	(74) VDD_CORE	(75) RSVD_D16	(76) RSVD_D13	(77) GND	(78) VDD3_14	(79) RSVD_D13	(80) CAREQ	D						
E	(81) ROM_LATO	(82) ROM_D7	(83) ROM_D6	(84) ROM_D3	(85) CACLK (86) VDD3_13 (87) CAS_DATA (88) CVENAB															E							
F	(89) VDD3_02	(90) ROM_CS	(91) ROM_LAT1	(92) VDD_CORE	(93) GND_TH	(94) GND_TH	(95) GND_TH	(96) GND_TH	(97) GND_TH	(98) GND_TH	(99) GND_TH	(100) GND_TH	(101) GND_TH	(102) GND_TH	(103) VDD_CORE (104) CAENAB (105) CVREQ (106) CVDATA6												F
G	(107) VICLK	(108) ROM_OE	(109) ROM_WE	(110) ROM_LAT2	(111) GND_TH	(112) GND_TH	(113) GND_TH	(114) GND_TH	(115) GND_TH	(116) GND_TH	(117) GND_TH	(118) GND_TH	(119) GND_TH	(120) GND_TH	(121) CVCLK (122) CVDATA7 (123) CVDATA5 (124) CVDATA4												G
H	(125) RSVD_H1	(126) VID1	(127) VID0	(128) GND	(129) GND_TH	(130) GND_TH	(131) GND_TH	(132) GND_TH	(133) GND_TH	(134) GND_TH	(135) GND_TH	(136) GND_TH	(137) GND_TH	(138) GND_TH	(139) GND (140) RSVD_H18 (141) ACLK (142) RSVD_H20												H
J	(143) RSVD_J1	(144) PLL_CLKI	(145) RSVD_J3	(146) VID2	(147) GND_TH	(148) GND_TH	(149) GND_TH	(150) GND_TH	(151) GND_TH	(152) GND_TH	(153) GND_TH	(154) GND_TH	(155) GND_TH	(156) GND_TH	(157) RSVD_J17 (158) CVDATA3 (159) CVDATA2 (160) CVDATA1												J
K	(161) VID5	(162) VID3	(163) VID4	(164) VDD_CORE	(165) GND_TH	(166) GND_TH	(167) GND_TH	(168) GND_TH	(169) GND_TH	(170) GND_TH	(171) GND_TH	(172) GND_TH	(173) GND_TH	(174) GND_TH	(175) CVDATA0 (176) AI_WCLK (177) AI_BCLK (178) AI_DATA												K
L	(179) CP_ENA	(180) RSVD_L2	(181) PLL_REF	(182) RSVD_L4	(183) GND_TH	(184) GND_TH	(185) GND_TH	(186) GND_TH	(187) GND_TH	(188) GND_TH	(189) GND_TH	(190) GND_TH	(191) GND_TH	(192) GND_TH	(193) VDD_CORE (194) SYSAMUX (195) SYSBCLK (196) SYSRDY												L
M	(197) VID6	(198) VID7	(199) GPIO0	(200) GPIO1	(201) GND_TH	(202) GND_TH	(203) GND_TH	(204) GND_TH	(205) GND_TH	(206) GND_TH	(207) GND_TH	(208) GND_TH	(209) GND_TH	(210) GND_TH	(211) SYSBG (212) SYSBB (213) SYSBURST (214) SYSCS												M
N	(215) GPIO2	(216) GPIO3	(217) GPIO4	(218) GND	(219) GND_TH	(220) GND_TH	(221) GND_TH	(222) GND_TH	(223) GND_TH	(224) GND_TH	(225) GND_TH	(226) GND_TH	(227) GND_TH	(228) GND_TH	(229) GND (230) SYSTA (231) VDD3_12 (232) SYSBR												N
P	(233) GPIO5	(234) GPIO6	(235) GPIO8	(236) GPIO10	(237) GND_TH	(238) GND_TH	(239) GND_TH	(240) GND_TH	(241) GND_TH	(242) GND_TH	(243) GND_TH	(244) GND_TH	(245) GND_TH	(246) GND_TH	(247) SYS_A21 (248) SYS_A24 (249) SYSRW												P
R	(251) GPIO7	(252) VDD3_05	(253) GPIO11	(254) VDD_CORE	(255) GND_TH	(256) GND_TH	(257) GND_TH	(258) GND_TH	(259) GND_TH	(260) GND_TH	(261) GND_TH	(262) GND_TH	(263) GND_TH	(264) GND_TH	(265) VDD_CORE (266) SYS_A20 (267) SYS_A22 (268) SYS_A23												R
T	(269) GPIO9	(270) GPIO12	(271) GPIO14	(272) CP_CLK	(273) SYS_A15 (274) SYS_A17 (275) SYS_A18 (276) SYS_A19																			T			
U	(277) GPIO13	(278) GPIO15	(279) CP_DOUT1	(280) GND	(281) VDATA4	(282) VDD_CORE	(283) VDD3_07	(284) GND	(285) SYS_D8	(286) VDD_CORE	(287) SYS_D17	(288) SYS_D21	(289) GND	(290) SYS_D30	(291) VDD_CORE	(292) SYS_A4	(293) GND	(294) SYS_A14	(295) SYS_A13	(296) SYS_A16	U						
V	(297) RESETI	(298) CP_DOUT2	(299) CP_DIN2	(300) VDATA3	(301) VDATA7	(302) HSYNC	(303) SYS_D2	(304) SYS_D5	(305) SYS_D9	(306) SYS_D12	(307) SYS_D16	(308) SYS_D20	(309) VDD3_09	(310) SYS_D27	(311) SYS_D31	(312) SYS_A2	(313) SYS_A5	(314) SYS_A8	(315) SYS_A12	(316) SYS_A11	V						
W	(317) CP_DIN1	(318) TEST	(319) VDATA1	(320) VDATA2	(321) VCLK	(322) SYS_D0	(323) SYS_D3	(324) SYS_D6	(325) SYS_D10	(326) VDD3_08	(327) SYS_D15	(328) SYS_D13	(329) SYS_D10	(330) SYS_D25	(331) SYS_D28	(332) SYS_A0	(333) SYS_A3	(334) SYS_A6	(335) SYS_A3	(336) SYS_A11	W						
Y	(337) VDATA0	(338) VDD3_06	(339) VDATA5	(340) VDATA6	(341) FIELD	(342) SYS_D1	(343) SYS_D4	(344) SYS_D7	(345) SYS_D11	(346) SYS_D13	(347) SYS_D14	(348) SYS_D18	(349) SYS_D22	(350) SYS_D24	(351) SYS_D26	(352) SYS_D23	(353) SYS_A1	(354) VDD3_10	(355) SYS_A7	(356) SYS_A10	Y						
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20							

12-13 Joy Stick

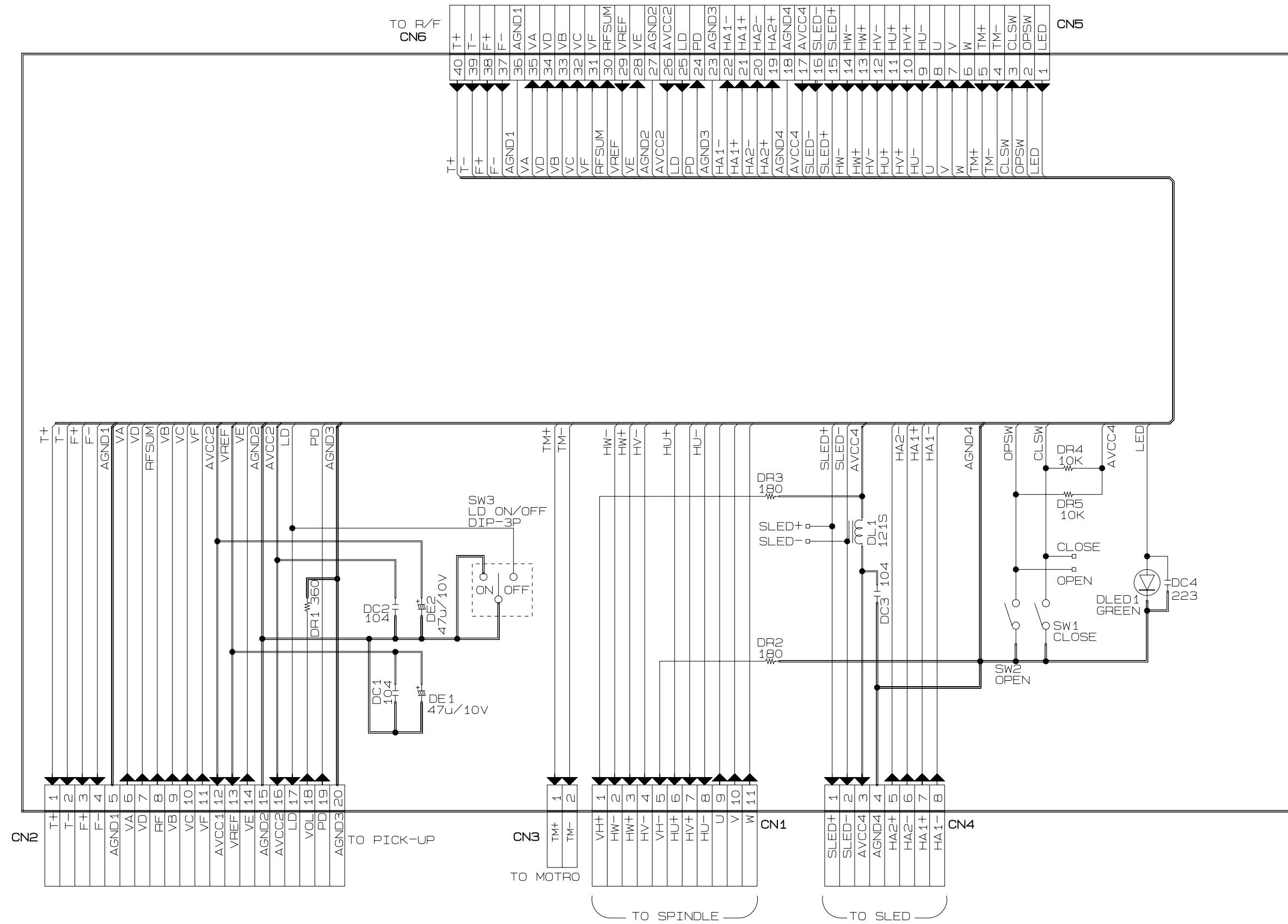


12-14 Headphone



12-15 Key Play

12-16 Deck



12-17 Remote-Control

