

VS-2400 CD

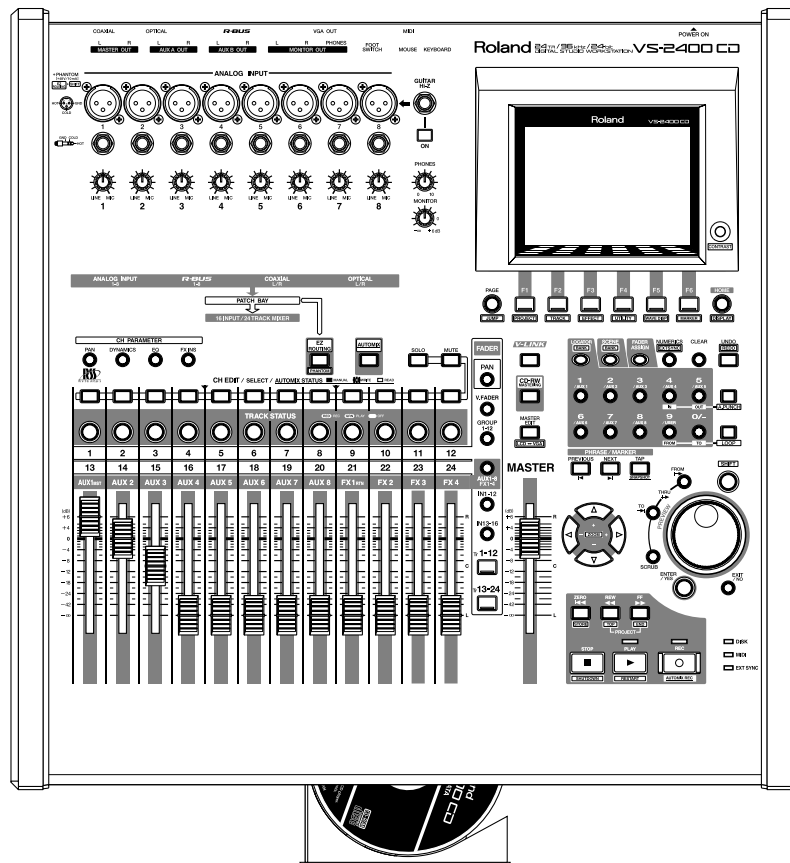
SERVICE NOTES

Issued by RJA

24 TR / 96 kHz / 24-bit
DIGITAL STUDIO WORKSTATION

TABLE OF CONTENT

SPECIFICATIONS.....	2	CIRCUIT DIAGRAM (MAIN 4/8)	40
LOCATION OF CONTROLS PARTS LIST	4	CIRCUIT DIAGRAM (MAIN 5/8)	42
LOCATION OF CONTROLS.....	5	CIRCUIT DIAGRAM (MAIN 6/8)	44
EXPLODED VIEW PARTS LIST	6	CIRCUIT DIAGRAM (MAIN 7/8)	46
EXPLODED VIEW	7	CIRCUIT DIAGRAM (MAIN 8/8)	48
WIRING DIAGRAM.....	8	CIRCUIT BOARD (ANALOG)	50
PARTS LIST.....	10	CIRCUIT BOARD (ANALOG)	52
CHECKING THE VERSION NUMBER.....	18	CIRCUIT DIAGRAM (ANALOG 1/4).....	54
SAVING USER DATA & RELOADING SAVED DATA.....	18	CIRCUIT DIAGRAM (ANALOG 2/4).....	56
TEST MODE.....	20	CIRCUIT DIAGRAM (ANALOG 3/4).....	58
SYSTEM SOFTWARE UPDATE PROCEDURE.....	23	CIRCUIT DIAGRAM (ANALOG 4/4).....	60
FORMATTING THE HARD DISK	23	CIRCUIT BOARD (PANEL/FADER)	62
BLOCK DIAGRAM 1.....	26	CIRCUIT DIAGRAM (PANEL).....	64
BLOCK DIAGRAM 2.....	28	CIRCUIT DIAGRAM (FADER).....	66
CIRCUIT BOARD (MAIN).....	30	CIRCUIT BOARD (CONTRAST/CDRW)	68
CIRCUIT BOARD (MAIN).....	32	CIRCUIT BOARD (CONTRAST/CDRW)	69
CIRCUIT DIAGRAM (MAIN 1/8)	34	CIRCUIT DIAGRAM (CONTRAST)	70
CIRCUIT DIAGRAM (MAIN 2/8)	36	CIRCUIT DIAGRAM (CDRW).....	72
CIRCUIT DIAGRAM (MAIN 3/8).....	38		



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SPECIFICATIONS

VS-2400CD: 24Tr,24bit,96kHz Sampling Digital Studio Workstation

- Tracks
Tracks:24
V-Tracks:384 (16 V-Tracks per each Track)

- Sample Rate
96.0 / 88.2 / 64.0 / 48.0 / 44.1 / 32.0 kHz

- * Adjustable range with vari-pitch function
22.00kHz-98.00kHz (at 96kHz)
22.00kHz-50.00kHz (at 48kHz)

- Recording Mode
Mastering 24-bit (M24)
Multitrack Pro (MTP)
CD Writing (CDR)
Mastering 16-bit (M16)
Multitrack 1 (MT1)
Multitrack 2 (MT2)
Live 1 (LIV)
Live 2 (LV2)

- Maximum Simultaneous Recording / Playback Tracks
Sample Rate 48/44.1/32kHz
16 tr. Rec / 16 tr. Play (M24,M16,CDR)
16 tr. Rec / 24 tr. Play (MTP,MT1/2,LIV,LV2)

Sample Rate 96/88.2/64kHz
8 tr. Rec / 8 tr. Play (M24,M16,CDR)
8 tr. Rec / 12 tr. Play (MTP,MT1/2,LIV,LV2)

- * Depending on the organization of the song data or the disk drive performance etc., the number of tracks which can be simultaneously recorded or played back may be limited.

- Maximum Useful Capacity
40 GB

- Recording Time
(at 10GB Partition, conversion in 1 track, unit : minutes)

Recording Mode	Sample Rate					
	96kHz	88.2kHz	64kHz	48kHz	44.1kHz	32kHz
M24	662	721	993	1,324	1,442	1,987
MTP	1,989	2,165	2,983	3,977	4,329	5,966
M16	994	1,082	1,491	1,989	2,165	2,983
CDR	994	1,082	1,491	1,989	2,165	2,983
MT1	1,989	2,165	2,983	3,977	4,329	5,966
MT2	2,651	2,885	3,976	5,302	5,771	7,953
LIV	3,181	3,462	4,772	6,362	6,925	9,543
LV2	3,977	4,329	5,966	7,955	8,658	11,932

- * The above-listed recording times are approximate. Times may be slightly depending on the specifications of the disk drive and on the number of songs that were created.

In "CDR" recording mode, two tracks are always used in a pair (channel link is on), so recording time is half the above-listed.

- Frequency Response
96.0kHz : 20Hz - 40kHz (+0dB/-2dB)
88.2kHz : 20Hz - 40kHz (+0dB/-2dB)
48.0kHz : 20Hz - 22kHz (+0dB/-2dB)
44.1kHz : 20Hz - 20kHz (+0dB/-2dB)
32.0kHz : 20Hz - 14kHz (+0dB/-2dB)
- Songs
200 songs
- Marker
1000 per project
- Locator
100 (10 x 10 banks) per project
- Scene
100 (10 x 10 banks) per project
- Undo/Redo
999 Undo / 1 Redo
- Nominal Input Level (variable)
Input 1-8 : -64 - +14dBu (maximum +26dBu : balanced, maximum +20dBu : unbalanced)
Guitar (Hi-Z) : -64 - +14dBu (maximum +20dBu)

- Input Impedance
Input 1-8 : 40k ohm (balanced)
Guitar (Hi-Z) : 1M ohm

- Nominal Output Level
Master Out : +4dBu (balanced)
AUX A (L, R) : +4dBu (balanced)
AUX B (L, R) : +4dBu (balanced)
Monitor Out : +4dBu (balanced)

- Output Impedance
Master Out : 600 ohm
AUX A (L, R) : 600 ohm
AUX B (L, R) : 600 ohm
Monitor Out : 600 ohm
Phones : 22 ohm

- Recommended Load Impedance
Master Out : 10k ohm or greater
AUX A (L, R) : 10k ohm or greater
AUX B (L, R) : 10k ohm or greater
Monitor Out : 10k ohm or greater
Phones : 8 - 600 ohm

- Residual Noise Level
(input terminated with 1k ohm, INPUT SENS : LINE, IHF-A, typ.)
Master Out : -86dBu or less
AUX A : -86dBu or less
AUX B : -86dBu or less
Monitor Out : -86dBu or less

- EQ
4-band (2 shelving + 2 peaking)

- * Useful simultaneously at up to 32ch in both Input Mixer and Track Mixer.

- Dynamics Processor
Compressor, Expander
- * *Useful simultaneously at up to 32ch in both Input Mixer and Track Mixer.*

- Effects
Maximum 4 stereo (One pre-installed + 1 more optional VS8F-2)

- Display
320 x 240 dots Graphic LCD (with backlight)

- Interface
SCSI : 25-pin D-sub
Digital I/O : Coaxial, Optical (conforms to S/P DIF)
VGA Out : 15-pin miniD-sub
PS/2 : MimiDIN 6pin
MIDI : DIN 5pin

- Connectors
MIDI Connectors(DIN 5pin type)
Input Jack 1-8(XLR type, balanced, phantom power)
Input Jack 1-8(1/4inch phone type, balanced)
Guitar(Hi-Z)Jack(1/4inch phone type)
Digital In Connectors(Coaxial type, Optical type)
Digital Out Connectors(Coaxial type, Optical type)
Foot Switch Jack(1/4inch phone type)
PS/2 Mouse Connector(miniDIN 6pin type)
PS/2 Keyboard Connector(miniDIN 6pin type)
VGA Out Connector(MiniDB-15 type)
R-BUS Connectors(DB-25 type)
Master Out Jack L/R(1/4inch phone type, TRS balanced)
Monitor Out Jack L/R(1/4inch phone type, TRS balanced)
AUX A Send Jack L/R(1/4inch phone type, TRS balanced)
AUX B Send Jack L/R(1/4inch phone type, TRS balanced)
Headphones Jack(Stereo 1/4inch phone type)

- Power Supply
AC117V, AC230V or AC240V

- Power Consumption
60W

- Dimensions
480(W) x 481(D) x 136(H) mm

- Weight
10.5kg (Excluding internal hard disk)
23 lbs 3 oz

- Accessories
Owner's Manual English (#72232856)
Leaflet Demo Performances English (#40561101)
AC Cord 120V (#00894378)
AC Cord 230V (#00894389)
AC Cord 240VA (#23495124)
AC Cord 240VE (#00907001)
PS/2 MOUSE (#02346478)
Demo CD-ROM (#03126745)
Blank CD-R Disk (#*****)
Short Cut Seal (#40561067)

- Options
24-bit Effect Expansion Board : VS8F-2
Channel Edit Controller : VE-7000
Level Meter Bridge : MB-24

Bi-amp Monitor : DS-90A, DS-50A
Dynamic Microphone : DR-20
8CH A/D-D/A Converter : ADA-7000
AES/EBU Interface : AE-7000
R-BUS Cable : RBC-1 (1m), RBC-5 (5m)
Footswitch : FS-5U (BOSS)
Pedal Switch : DP-2

* $OdBu = 0.775Vrms$

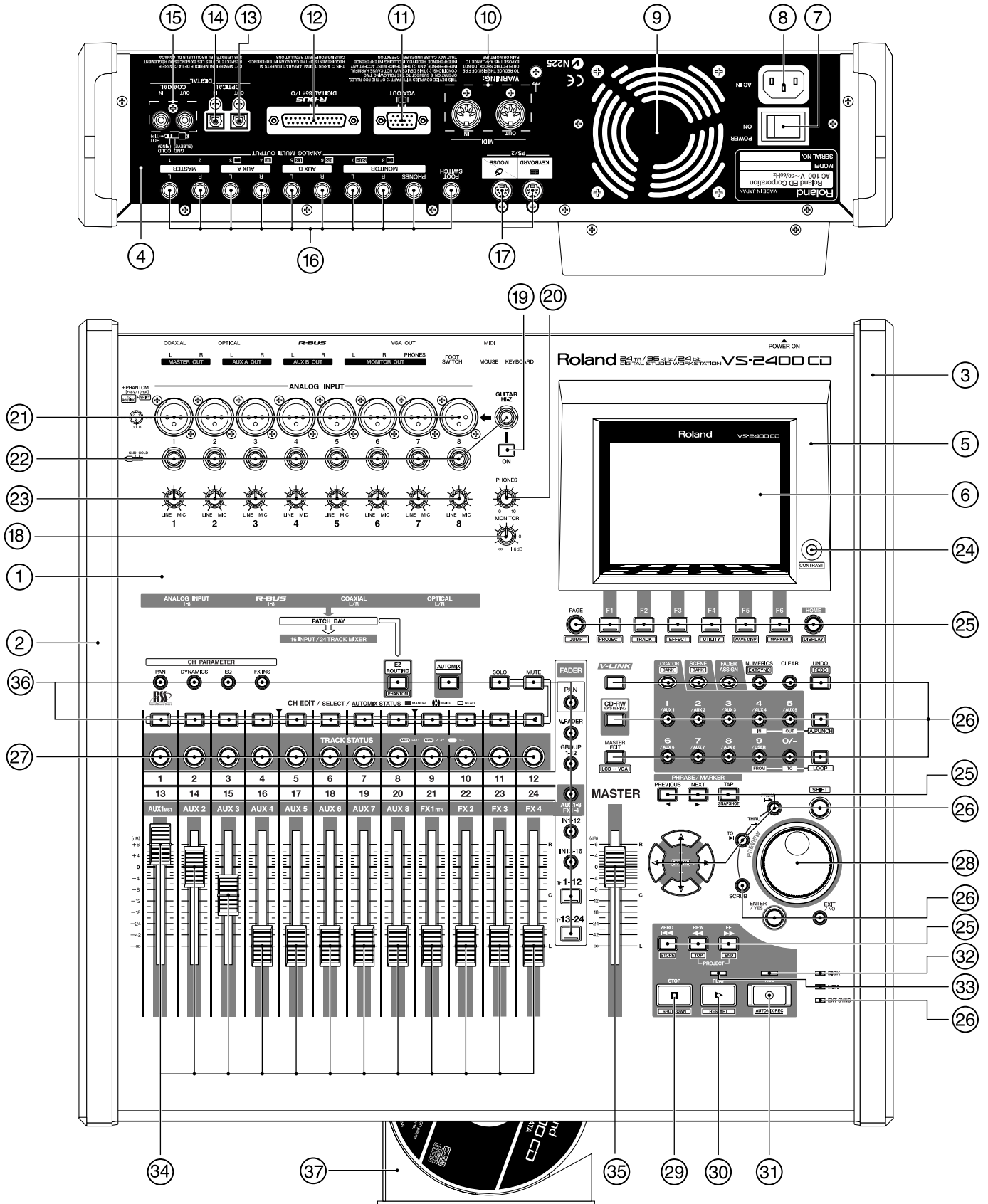
* *In the interest of product development, the specifications for this product are subject to change without prior notice.*

LOCATION OF CONTROLS PARTS LIST

[Parts]

No	Part Code	Part Name	Description	Q'ty
1	03121267	TOP COVER		1
2	03121278	SIDE PANEL L		1
3	03121289	SIDE PANEL R		1
4	03121334	REAR PANEL		1
5	03121323	DISPLAY ESCUTCHEON		1
6	03121290	DISPLAY COVER		1
7	01786012	SEESAW SWITCH	JW-M11RKK	1
8	02563867	WIRING	AC ASSY	
9	02562956	DC FAN MOTOR	9A0812L403	1
10	13429825	MIDI CONNECTOR	YKF51-5054 2PZ	1
11	01238856	CONNECTOR	YKF42-8020 (TO PC DISPLAY OUT)	1
12	02455890	D-SUB CONNECTOR	YKF42-8039	1
13	02565390	OPTICAL CONNECTOR TX	GP1FA501TZ	1
14	02565401	OPTICAL CONNECTOR RX	GP1FA501RZ	1
15	00458801	PIN JACK (ORG) PINx2	YKC21-3044 0/0	1
16	00569278	6.5MM JACK	LGR4609-7100	10
17	03124956	DIN CONNECTOR	YKF51-5399	2
18	02565389	U R-KNOB	S1 LCG RED	1
	03126412	9M/M ROTARY POT.	RK09L1140 10KB L=25	1
19	02451189	VS KEYTOP SX	PERPUL	1
	02453834	PUSH SWITCH	SPPH430100	1
20	01891834	U R-KNOB	S1 LCG BLU	1
	02901678	9M/M ROTARY POT.	RK09L12D0 50KA L=25	1
21	01453123	XLR CONNECTOR	NC3FAV2-0	8
22	01789234	6.5MM JACK	JY-6353-01-250	9
23	01891801	U R-KNOB	S1 LCG BLK	8
	03124945	9M/M ROTARY POT.	RK09L1140 50KRD L25 RR1	8
24	01904401	9M/M ROTARY POT.	EVU F2A E25 B53	1
25	03121423	KEYTOP R		1
	02891789	TACT SWITCH	SKRGADD010 H=5.0	85
26	03121423	KEYTOP R		1
	02891789	TACT SWITCH	SKRGADD010 H=5.0	85
	01239856	LED (ORANGE)	SEL5921A TP15	54
27	03121412	KEYTOP L		1
	02891789	TACT SWITCH	SKRGADD010 H=5.0	85
	03012001	LED	SML72423C TP15 D RANK	12
28	22485303	D R-KNOB(ALPHA-DIAL)	L BLK 248-303	1
	01231367	ROTARY ENCODER	EC16B24204 (L=15) (W/N&W)	1
29	00901390	KEYTOP	STOP(WHIT GREY)	1
	00894645	TACT SWITCH	SKECAF WITHOUT LED	3
30	00901401	KEYTOP	PLAY(WHIT GREY)	1
	00894645	TACT SWITCH	SKECAF WITHOUT LED	3
31	00901412	KEYTOP	REC(RED)	1
	00894645	TACT SWITCH	SKECAF WITHOUT LED	3
32	03121423	KEYTOP R		1
	03011990	LED (RED)	SEL5221S TP15 D RANK	2
33	03121423	KEYTOP R		1
	00676423	LED (GREEN)	SEL5421E TP-15	2
34	01349423	U S-KNOB	M1 LCG DCG GRY/BLK	12
	02901734	60M/M MOTOR FADER	EVANSA CB1 B14	13
35	01349434	U S-KNOB	M1 MRD LCG	1
	02901734	60M/M MOTOR FADER	EVANSA CB1 B14	13
36	03121412	KEYTOP L		1
	02891789	TACT SWITCH	SKRGADD010 H=5.0	85
	01239856	LED (ORANGE)	SEL5921A TP15	54
37	03121423	KEYTOP R		1
	01239856	LED (ORANGE)	SEL5921A TP15	54
38	03231878	CD-R/RW DRIVE	UJDA 360RL-Z	1

LOCATION OF CONTROLS



EXPLODED VIEW PARTS LIST

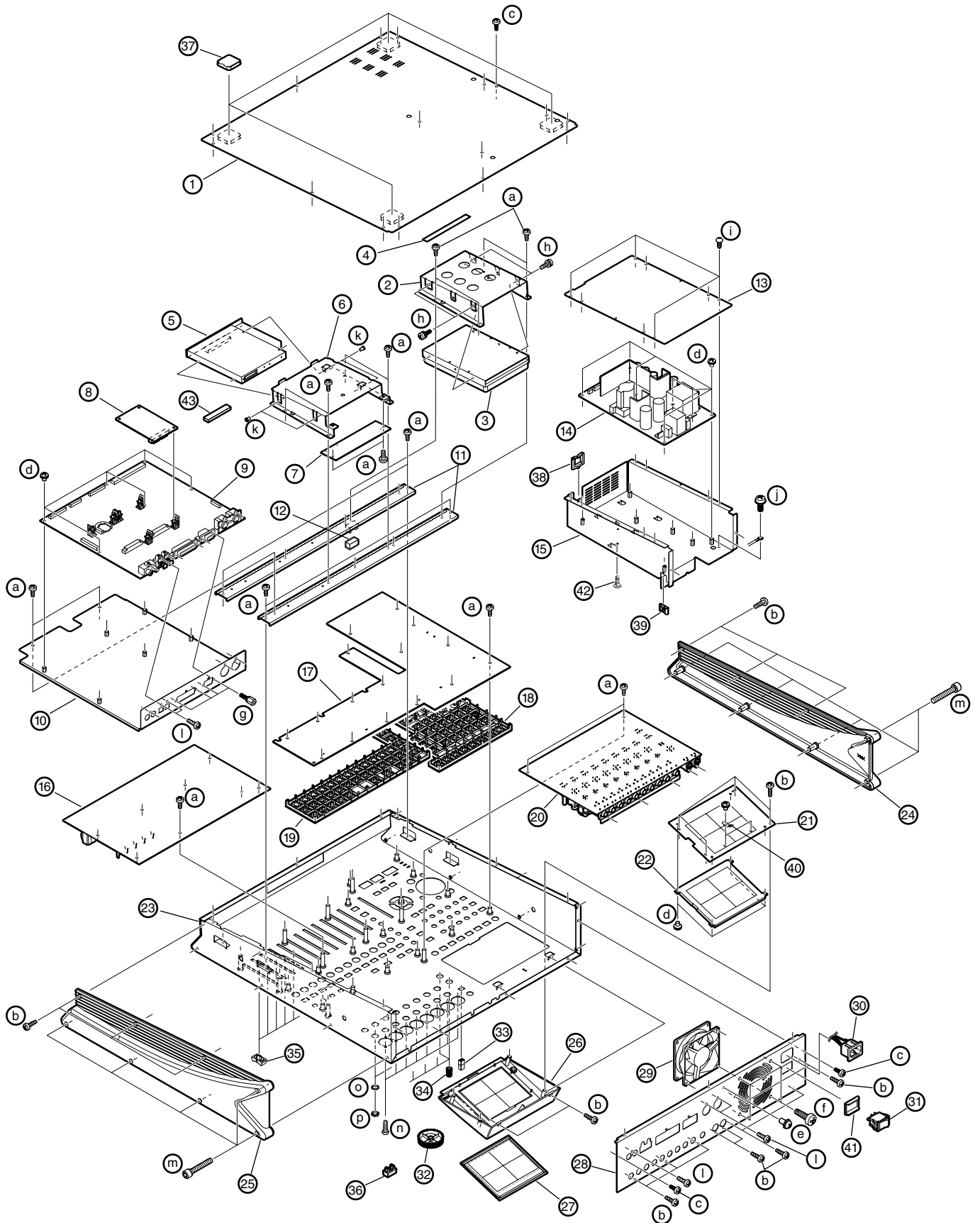
[Parts]

No	Part Code	Part Name	Description	Q'ty
1	03121389	BOTTOM COVER		1
2	03121456	HDD HOLDER		1
3	03230378	HDD UNIT	2F040J0	1
4	03232612	CUSHION HDD		1
5	03231878	CD-R/RW DRIVE	UJDA 360RL-Z	1
6	03121489	CD HOLDER		1
7	72232056	CDRW BOARD ASSY		1
8	71019234	EFFECT EXPANSION BOARD		1
9	72232023	MAIN BOARD ASSY		1
10	03121467	SHIELD PANEL		1
11	03121401	ANGLE		2
12	03232590	CUSHION ANGLE		1
13	03121378	POWER SPLY COVER		1
14	02562889	SWITCHING REGULATOR	SWP05	1
15	03121445	PWR SPLY HOLDER		1
16	72232078	FADER BOARD ASSY		1
17	72232089	PANEL BOARD ASSY		1
18	03121423	KEYTOP R		1
19	03121412	KEYTOP L		1
20	72232090	ANALOG BOARD ASSY		1
21	72232123	CONTRAST BOARD ASSY		1
23	03121267	TOP COVER		1
24	03121289	SIDE PANEL R		1
25	03121278	SIDE PANEL L		1
26	03121323	DISPLAY ESCUTCHEON		1
27	03121290	DISPLAY COVER		1
28	03121334	REAR PANEL		1
29	02562956	DC FAN MOTOR	9A0812L403	1
30	02563867	WIRING	AC ASSY	1
31	01786012	SEESAW SWITCH	JW-M11RKK	1
32	22485303	D R-KNOB(ALPHA-DIAL)	L BLK 248-303	1
33	02451189	VS KEYTOP SX	PERPUL	1
34	01891801	U R-KNOB	S1 LCG BLK	8
35	01349423	U S-KNOB	M1 LCG DCG GRY/BLK	12
36	00901401	KEYTOP	PLAY(WHIT GREY)	1
37	22355334	FOOT MKS	235-334	4
38	01455523	CORD BUSHING	EDS-1717U	1
39	00902790	CORD BUSHING	EDS-1208U	1
40	22175349	LEAF SPRING	217-349	1
41	01786045	SW HOLDER	AT-217K	1
42	12189817	PCB SPACER	RSPLS-10U	1
43	02908967	SHIELD CUSHION		1

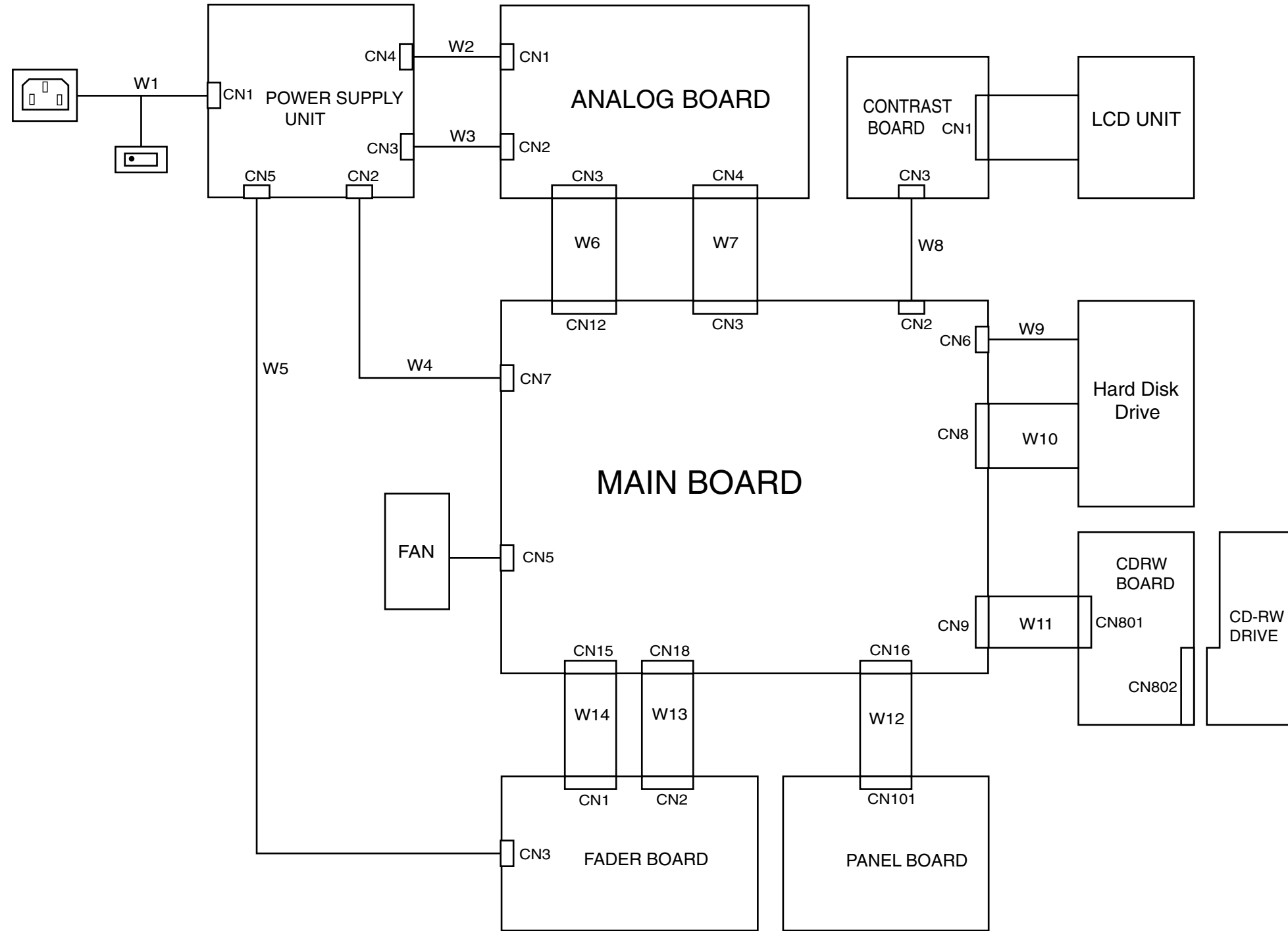
[Screws]

No	Part Code	Part Name	Description	Q'ty
a	40013056	SCREW M3x6	PAN MACHINE W/SW+PW ZC	6
b	40011101	SCREW 3x8	BINDING TAPTITE B BZC	17
c	40012534	SCREW 3x6	BINDING TAPTITE S FE BZC	18
d	40013056	SCREW M3x6	PAN MACHINE W/SW+PW ZC	7
e	40458345	SCREW M4x8	PAN MACHINE W/SW+SMALL PW NI	1
f	40451412	SCREW 5x10	BINDING A BZC WOOD	4
g	40344134	SCREW M4-40x7.9	HEX SOCKET NI	4
h	40450367	SCREW 6-32UNC	1008SR/KM003	4
I	40239889	SCREW M3x6	BUTTON-TRUS TAPTITE S BZC	4
j	40342989	SCREW M4x8	PAN W/EX.TOOTH WASHER	1
k	40454956	SCREW M2x2.5	SPECIAL PAN ZNC	4
l	40011312	SCREW 3x8	BINDING TAPTITE P BZC	5
m	40459590	SCREW M4x20	HEX SOCKET HEAD NI	10
n	40011201	SCREW 3x8	PAN TAPTITE P BZC	16
o	40016412	JACK WASHER	M9x13.5x0.45	9
p	40456923	NUT	M9x11x2P.75 NI	

EXPLODED VIEW



WIRING DIAGRAM



[Parts]

No	Part Code	Part Name	Description	Qty
W1	02563867	WIRING	AC ASSY	1
W2	03126434	WIRING	2x360-P2.5-XHP-SCN	1
W3	03126423	WIRING	5x260-P2.5-XHP-SCN	1
W4	03126467	WIRING	4x170-P2.5-LCP-SCN	1
W5	03126445	WIRING	4x350-P2.5-XHP-SCN	1
W6	03126345	BAN CARD	BNCD-P=1.25-K-12-120	1
W7	03126334	BAN CARD	BNCD-P=1.25-K-26-120	1
W8	03126390	WIRING	11x200-P2.0-PHR-PHR	1
W9	03126456	WIRING	6x300-P2.5-XHP-SCN	1
W10	03128167	WIRING	NIB3-10-005	1
W11	03126389	WIRING	CDRW	1
W12	03126367	BAN CARD	BNCD-P=1.25-K-24-500	1
W13	03126356	BAN CARD	BNCD-P=1.25-K-26-240	1
W14	03126378	BAN CARD	BNCD-S-P=1.25-K-16-260	1

PARTS LIST

SAFETY PRECAUTIONS:

The parts marked Δ have safety-related characteristics. Use only listed parts for replacement.

CONSIDERATION ON PARTS ORDRING

When ordering any parts listed in the parts list, please specify the following items in the order sheet.

	QTY	PART NUMBER	DESCRIPTION	MODEL NUMBER
Ex.	10	22575241	Sharp Key	C-20/50
	15	2247017300	Knob (orange)	DAC-15D

Failure to completely fill the above items with correct number and description will result in delayed or even undelivered replacement.

NOTE: The parts marked # are new. (initial parts)

MB -> MAIN BOARD ASSY, AB -> ANALOG BOARD ASSY, PB -> PANEL BOARD ASSY, FB -> FADER BOARD ASSY, CB -> CONTRAST BOARD ASSY

CASING					Q'ty
#	03121389	BOTTOM COVER			1
#	03121290	DISPLAY COVER			1
#	03121323	DISPLAY ESCUTCHEON			1
#	03121378	POWER SPLY COVER			1
#	03121334	REAR PANEL			1
#	03121278	SIDE PANEL L			1
#	03121289	SIDE PANEL R			1
#	03121267	TOP COVER			1
CHASSIS					
#	03121401	ANGLE			2
#	03121489	CD HOLDER			1
#	03121456	HDD HOLDER			1
#	01786045	SW HOLDER	AT-217K		1
#	03121445	PWR SPLY HOLDER			1
KNOB, BUTTON					
	22485303	D R-KNOB(ALPHA-DIAL)	L BLK 248-303		1
#	03121412	KEYTOP L			1
#	03121423	KEYTOP R			1
	00901401	KEYTOP	PLAY(WHIT GREY)		1
	00901412	KEYTOP	REC(RED)		1
	00901390	KEYTOP	STOP(WHIT GREY)		1
	02451189	VS KEYTOP SX	PERPUL		1
	01891801	U R-KNOB	S1 LCG BLK		8
	01891834	U R-KNOB	S1 LCG BLU		1
	02565389	U R-KNOB	S1 LCG RED		1
	01349423	U S-KNOB	M1 LCG DCG GRY/BLK		12
	01349434	U S-KNOB	M1 MRD LCG		1
SWITCH					
Δ	01786012	JW-M11RKK	SEESAW SWITCH		1
	00894656	SKQNAD	TACT SWITCH	SW1 on MB	1
	00894645	SKECAF WITHOUT LED	TACT SWITCH	SW169,SW168,SW172 on PB	3
	02891789	SKRGADD010 H=5.0	TACT SWITCH		85
	02453834	SPPH430100	PUSH SWITCH	SW1 on AB	1
JACK, EXT TERMINAL					
	01789234	JY-6353-01-250	6.5MM JACK	JK15,JK3,JK6,JK12,JK18,JK22,JK24,JK26,JK9 on AB	9
	00569278	LGR4609-7100	6.5MM JACK	JK21,JK25,JK19,JK16,JK13,JK10,JK7,JK4,JK27,JK2 on AB	10
	00458801	YKC21-3044 0/0	PIN JACK (ORG)PIN x2	JK2 on MB	1
	13429825	YKF51-5054 2PZ	MIDI CONNECTOR	JK1 on MB	1
#	03124956	YKF51-5399	DIN CONNECTOR	JK29,JK28 on AB	2
	02455890	YKF42-8039	D-SUB CONNECTOR	CN13 on MB	1
	01238856	YKF42-8020 (TO PC DISPLAY OUT)	CONNECTOR	CN4 on MB	1
	01453123	NC3FAV2-0	XLR CONNECTOR	JK23,JK1,JK5,JK8,JK11,JK14,JK20,JK17 on AB	8
DISPLAY UNIT					
#	72232112	LCD UNIT ASSY			1
		NOTE: Replacement LCD UNIT ASSY should be made on a unit base.			
DRIVE UNIT					
Δ	#	03230378	2F040J0	HDD UNIT	1
		NOTE: Replacement HDD UNIT should be made on a unit base.			

DRIVE UNIT					
△	#	03231878	UJDA360RL-Z	CD-R/RW DRIVE UNIT	1
		NOTE: Replacement CD-R/RW DRIVE UNIT should be made on a unit base.			
POWER SUPPLY UNIT					
△		02562889	SWP05	SWITCHING REGULATOR	1
		NOTE: Replacement SWITCHING REGULATOR should be made on a unit base.			
PCB ASSY					
#		72232034	MAIN BOARD ASSY		1
		NOTE: 'MAIN BOARD ASSY' includes the following parts.			
#		03126467	WIRING	4x170-P2.5-LCP-SCN	CN6 on MB
#		03126456	WIRING	6x300-P2.5-XHP-SCN	CN7 on MB
		00899890	PWB SPACER	KGES-12	6
#		72232090	ANALOG BOARD ASSY		1
		NOTE: 'ANALOG BOARD ASSY' includes the following parts.			
#		03126434	WIRING	2x360-P2.5-XHP-SCN	CN1 on AB
#		03126423	WIRING	5x260-P2.5-XHP-SCN	CN2 on AB
#		03121478	JACK HOLDER		1
#		72232089	PANEL BOARD ASSY		1
#		72232078	FADER BOARD ASSY		1
		NOTE: 'FADER BOARD ASSY' includes the following parts.			
#		03126445	WIRING	4x350-P2.5-XHP-SCN	CN3 on FB
#		72232123	CONTRAST BOARD ASSY		1
		NOTE: 'CONTRAST BOARD ASSY' includes the following parts.			
		12189804	GROUNDING TERMINAL	M1700	4
		12199599	GRAND TERMINAL	M3	2
#		72232056	CDRW BOARD ASSY		1
		71019234	EFFECT EXPANSION BOARD		1
IC					
		01679156	HD6417014 RF28	IC (32BIT CPU)	IC77 on MB
		02454289	HD6417709AF133	IC (32BIT CPU)	IC5 on MB
		02129089	TMS320VC5402	IC (CPU DSP)	IC48 on MB
		01672867	M38881M2-069FP	IC (CPU)	IC27 on MB
		02458978	XC856364FU100	IC (DSP)	IC53,IC54,IC56,IC57,IC58,IC55 on MB
		00343823	M60205-0601FP	IC (GATE ARRAY)	IC83 on MB
		*****	MBM29F400BC-90PFTN	IC (FLASH MEMORY /BLANK)	IC78 on MB
		*****	TC58FVB321FT-10	IC (FLASH MEMORY /BLANK)	IC4 on MB
		02453878	AK4528VF	IC (AD/DA)	IC17,IC11,IC23,IC5 on AB
		03018301	K4S641632F-TC75	IC (SDRAM)	IC1,IC9 on MB
		01902034	UPD43256BGU-70LL	IC (SRAM)	IC79 on MB
#		03125034	HY51V16164CSLTC-60 REC	IC (DRAM)	1
		15169550T0	TC74HC138AP	IC (CMOS)	IC105,IC104,IC101,IC103 on PB
		15259865T0	TC74HC4053AF(TP2)	IC (CMOS)	IC80,IC82 on MB
		15169556T0	TC74HC574AP	IC (CMOS)	IC107 on PB
#		03126767	TC74LCX245F(EL)	IC (CMOS)	IC3 on MB
		00231878	TC74VHC00F(EL)	IC (CMOS)	1
		00231890	TC74VHC08F(EL)	IC (CMOS)	IC12 on MB
		00670290	TC74VHC139F(EL)	IC (CMOS)	IC47 on MB
		00893967	TC74VHC153F(EL)	IC (CMOS)	IC66,IC38 on MB
		00236889	TC74VHC157F(EL)	IC (CMOS)	IC81,IC37,IC36,IC11 on MB
		00893978	TC74VHC393F(EL)	IC (CMOS)	IC51 on MB
		00564534	TC74VHC574F(EL)	IC (CMOS)	4
		00236878	TC74VHC74F-EL	IC (CMOS)	IC67 on MB
		01458412	TC74VHCT04AF(EL)	IC (CMOS)	IC43,IC60 on MB
		01670789	TC74VHCT08AF	IC (CMOS)	IC7,IC2 on MB. IC27 on AB
					+1
		00789689	TC74VHCT244AF(EL)	IC (CMOS)	IC40 on MB
		01122267	TC74VHCT245F(EL)	IC (CMOS)	IC21 on MB
		01901967	TC74VHCT74AF(EL)	IC (CMOS)	IC62 on MB
		15249104	TC7S04F(TE85L)	IC (CMOS)	IC14,IC85 on MB
		15259884	TC7S08F(TE85L)	IC (CMOS)	IC84 on MB
		15259885	TC7S32F(TE85L)	IC (CMOS)	IC29 on MB
		02563612	TC7SET00F(TE85L)	IC (CMOS)	IC69 on MB
		01786690	TC7SET08F(TE85L)	IC (CMOS)	IC92 on MB
		01348901	TC7SH04FU(TE85L)	IC (CMOS)	IC49 on MB
		00564701	TC7SH08F(TE85L)	IC (CMOS)	IC65 on MB
#		02561367	TC7SL08F(TE85L)	IC (CMOS)	IC16 on MB
		02015190	TC7SZ08F(TE85L)	IC (CMOS)	IC50 on MB
		15249121	TC7W04F(TE12L)	IC (CMOS)	IC17 on MB
		15249112	TC7W32F(TE12L)	IC (CMOS)	IC90 on MB
		01455323	TC7W34FU(TE12L)	IC (CMOS)	IC26 on MB
		02232356	TC7WH125FU(TE12L)	IC (CMOS)	IC76 on MB

IC					
	01907689	TC7WH157FU(TE12L)	IC (CMOS)	IC59,IC35 on MB	2
	01455312	TC7WH74FU	IC (CMOS)	IC91,IC72 on MB	1
	15249111	TC7WU04F(TE12L)	IC (CMOS)	IC25 on MB	1
#	03231678	TC7WZ74FU(TE12L)	IC (CMOS)		1
	02234234	TC74VHCT574AF(EL)	IC (CMOS)	IC20,IC22 on MB	2
	01348101	TC7SET32FU(TE85L)	IC (CMOS)	IC23 on MB	1
	01341567	TC74VHC163F(EL)	IC (TTL COUNTER)	IC68,IC71 on MB	2
	01341578	TC74VHC14F(EL)	IC (TTL SCHMITT TRIGGER INV.)	IC73,IC70 on MB	2
	01458390	TC74LVX244F(EL)	IC (TTL)		1
	15289128	BA10324AF	IC (OP AMP)	IC1 on CB	1
	15289141	M5223AFP-600D	IC (BIPOLAR OP AMP)	IC13 on MB	1
	15189266	NE-5532AN	IC (BIPOLAR OP AMP)		5
	15289105	UPC4570G2-E2	IC (BIPOLAR OP AMP)	IC9,IC6,IC10,IC12,IC3,IC2,IC8,IC15,IC21,IC16,IC4,IC18,IC19,IC26,IC24,IC22,IC14 on AB	17
#	03120356	AK4114VQ	IC (DIGITALAUDIO TRANSCEIVER)	IC61 on MB	1
	02563589	TC74LCX74F	IC (EL)	IC63 on MB	1
	02344478	TC200G08AF-0028	IC (I/F)	IC46 on MB	1
	02019601	TC203G60AF-0014	IC (I/F)	IC39 on MB	1
#	03120545	MD3306BP	IC (IDE CONTROL)	IC34 on MB	1
	02454334	SED1356F0A	IC (LCD-DRIVER)	IC19 on MB	1
	02901723	BA6218	IC (MOTOR DRIVER)	IC3,IC5,IC2,IC4,IC11,IC1,IC6,IC12,IC10,IC9,IC8,IC7,IC13 on FB	13
	02565401	GP1FA501RZ RX	IC (OPTICAL CONNECTOR)	JK3 on MB	1
	02565390	GP1FA501TZ TX	IC (OPTICAL CONNECTOR)	JK4 on MB	1
	02900545	PC410LKNIP	IC (PHOTO COUPLER)		1
	02563534	ICS512MT	IC (PLL)	IC75 on MB	1
	00564690	TC9246F(ELP)	IC (PLL)	IC44,IC64 on MB	2
	15199286	AN78L05M-(E1)	IC (REGULATOR)	IC45 on MB	1
	00458312	NJM2360M	IC (REGULATOR)	IC2 on CB	1
	02230056	PQ07VZ5M2ZP	IC (REGULATOR)	IC18 on MB	1
	02453967	PQ1R18	IC (REGULATOR)	IC52 on MB	1
	02783601	UPC2925T-T1	IC (REGULATOR)	IC33 on MB	1
	02454878	M62220FP-600C	IC (REGULATOR)	IC30 on MB	1
	15199937	M51953BFP-600C	IC (RESET)		1
	01347489	RTC-4543 SA-A	IC	IC15 on MB	1
TRANSISTOR					
	01902012	2SA1244Y(TE16L)	TRANSISTOR	Q2 on MB	1
	01121278	2SA1576A T106 QRS	TRANSISTOR	Q53 on AB	1
	15309105	2SA1587-GR(TE85L)	TRANSISTOR	Q21,Q45,Q37,Q1,Q25,Q13,Q9,Q33 on AB	8
	02454390	2SA1588-GR(TE85L)	TRANSISTOR	Q52 on AB	1
	01121289	2SC4081 T106 QRS	TRANSISTOR	Q46,Q39,Q10,Q14,Q22,Q26,Q34,Q2 on AB	8
	01239990	2SC4117-GR(TE85L)	TRANSISTOR	Q1,Q4,Q5,Q7,Q6 on MB. Q47,Q42,Q41,Q23,Q29,Q12,Q30,Q35,Q24,Q48,Q17,Q36,Q11,Q5,Q4,Q18 on AB. Q1 on CB	5 +1 +1
	15319115	2SC4213-A(TE85L)	TRANSISTOR	Q43,Q38,Q3,Q50,Q49,Q44,Q40,Q32,Q31,Q28,Q6,Q20,Q19,Q16,Q15,Q8,Q7,Q27 on AB	18
	15329103T0	2SK880-GR(TE85R)	FET	Q51 on AB	1
	00239812	DTC114EUT106	DIGITAL TRANSISTOR	Q3 on MB. Q54 on AB	1 +1
	00019112	TD62381P	TRANSISTOR ARRAY	IC108 on PB	1
	15149134	TD62785P	TRANSISTOR ARRAY	IC106,IC102 on PB	2
DIODE					
	02454412	CRG02 (TE85L)	RECTIFIER DIODE	D2,D1 on AB	2
	01780045	RB051L-40	SCHOTTKY DIODE	D6 on MB	1
	02454856	RB081L-20 TE25	SCHOTTKY DIODE	D5 on MB	1
	15019126	1SS133 T-77	SWITCHING DIODE	D131,D123,D124,D125,D126,D127,D128,D130,D169,D132,D133,D134,D135,D136,D137,D138,D139,D140,D141,D142,D129,D110,D143,D101,D102,D103,D104,D105,D106,D107,D122,D109,D121,D111,D112,D113,D114,D115,D116,D117,D118,D119,D120,D108,D178,D168,D170,D144,D172,D167,D174,D175,D166,D177,D171,D179,D180,D181,D182,D183,D184,D185,D186,D187,D188,D176,D151,D145,D146,D147,D148,D173,D150,D165,D152,D153,D154,D164,D156,D157,D158,D159,D160,D161,D162,D163,D155,D149 on PB	88
	01019534	1SS355 TE-17	SWITCHING DIODE	D4,D3,D1,D2 on MB	4
	00783034	1SS294(TE85L)	DIODE	D1 on CB	1
	02908890	FTZ6.8E T148	ZENER DIODE	D8,D9,D7 on MB	3
	03011990	SEL5221S TP15 D RANK	LED (RED)	LED172,LED104,LED155 on PB	3
	00676423	SEL5421E TP15	LED (GREEN)	LED108,LED103,LED171 on PB	3
	01239856	SEL5921A TP15	LED (ORANGE)	LED135,LED143,LED142,LED140,LED138,LED144,LED136,LED148,LED134,LED133,LED132,LED137,LED145,LED147,LED129,LED149,LED150,LED151,LED152,LED153,	54

DIODE			
			LED154,LED156,LED157,LED158,LED146,LED116,LED101,LED102,LED105,LED106,LED107,LED109,LED110,LED111,LED112,LED113,LED131,LED115,LED130,LED117,LED118,LED119,LED120,LED121,LED122,LED123,LED124,LED125,LED126,LED127,LED128,LED141,LED114,LED139 on PB
03012001	SML72423C TP15 D RANK	LED	LED160,LED161,LED162,LED163,LED164,LED165,LED166,LED167,LED168,LED169,LED170,LED159 on PB
01121323	DA204U T106	DIODE ARRAY	DA4,DA3,DA5,DA6,DA7,DA1 on MB.
01121334	DAN202U T106	DIODE ARRAY	DA2,DA1 on AB DA2 on MB
			6 +2 1
RESISTOR			
01788256	RD16ST26A 100 J	CARBON RESISTOR	R109,R119,R118,R117,R116,R115,R114,R120,R111,R112,R108,R107,R106,R105,R104,R103,R102,R101,R113,R110 on PB
15399750	MCR100 39 1W	RESISTOR	R49 on MB
01344723	MCR25 JZH J 220 OHM 1/4W	MTL.FILM RESISTOR	R326,R335 on AB
15399707	MCR25 JZH J 151	MTL.FILM RESISTOR	R84,R32,R119,R41,R163,R196,R57,R31,R85,R136,R135,R5,R104,R4,R118,R56,R276,R216,R217,R244,R245,R265,R40,R275,R105,R299,R300,R195,R185,R184,R164,R266 on AB
01451423	MCR25 JZH J 682 1/4W	MTL.FILM RESISTOR	R253,R173,R222,R254,R304,R305,R172,R221,R141,R6,R140,R92,R91,R60,R59,R7 on AB
01011856	RPC05T 0R0 J	MTL.FILM RESISTOR	R97 on MB. R801 on CDRW Board
			1 +1
#	03233201	RPC05T 3R3 J	MTL.FILM RESISTOR
	00566867	RPC05T 100 J	MTL.FILM RESISTOR
			R3,R44 on MB. R353 on AB
			1 2 +1
	00566890	RPC05T 150 J	MTL.FILM RESISTOR
	00566912	RPC05T 220 J	MTL.FILM RESISTOR
	00566934	RPC05T 330 J	MTL.FILM RESISTOR
			R17,R16,R15,R14,R13 on CB R87,R72,R70,R69,R88,R90 on MB R193,R184,R185,R186,R187,R188,R189,R190,R192,R178,R194,R195,R196,R197,R198,R191,R93,R63,R74,R75,R76,R77,R78,R180,R92,R183,R94,R95,R96,R107,R177,R201,R179,R181,R182,R81,R202,R203,R204,R205,R206,R207,R208,R200,R199 on MB
	00566967	RPC05T 470 J	MTL.FILM RESISTOR
			R160,R145,R146,R148,R156,R157,R144,R159,R147,R161,R173,R158,R149 on MB
	00567001	RPC05T 750 J	MTL.FILM RESISTOR
	00567012	RPC05T 820 J	MTL.FILM RESISTOR
	00567023	RPC05T 101 J	MTL.FILM RESISTOR
			R137,R136 on MB R86,R68,R73,R89,R91,R71 on MB R110,R52,R45,R130,R142 on MB. R350 on AB. R9 on CB
			2 6 5 +1
	00567034	RPC05T 121 J	MTL.FILM RESISTOR
	00567045	RPC05T 151 J	MTL.FILM RESISTOR
	00567056	RPC05T 181 J	MTL.FILM RESISTOR
	00567067	RPC05T 221 J	MTL.FILM RESISTOR
	00567112	RPC05T 471 J	MTL.FILM RESISTOR
	00567156	RPC05T 102 J	MTL.FILM RESISTOR
			R56,R51 on MB R42,R41,R40 on MB R7 on CB R60,R58,R164 on MB R138 on MB
	00567178	RPC05T 152 J	MTL.FILM RESISTOR
	00567190	RPC05T 222 J	MTL.FILM RESISTOR
	00567212	RPC05T 332 J	MTL.FILM RESISTOR
	00567245	RPC05T 472 J	MTL.FILM RESISTOR
			R119,R121,R122,R116,R113,R84,R65,R55,R53,R21,R115,R118,R112 on MB. R11 on CB R109,R140 on MB R1,R5,R4,R2 on CB R8 on CB
			13 +1 2 4 1
	00567256	RPC05T 562 J	MTL.FILM RESISTOR
	00567289	RPC05T 103 J	MTL.FILM RESISTOR
			R19,R120,R117,R114,R111,R48,R174,R39,R16,R17,R15,R13,R12,R11,R10,R9,R8,R7,R47,R14 on MB R64,R83 on MB R98,R101,R102,R103,R104,R123,R124,R125,R82,R127,R79,R128,R129,R150,R151,R152,R153,R154,R155,R163,R1,R165,R126,R28,R59,R61,R66,R50,R43,R38,R32,R31,R85,R29,R57,R26 R175,R166,R25,R23,R22,R6,R5,R4,R2,R67,R30,R226,R171,R169,R227,R225,R224,R223,R222,R221,R220,R219,R218,R215,R214,R213,R212,R211,R210,R209,R228,R172,R217,R170 on MB
			2 70
	00567312	RPC05T 183 J	MTL.FILM RESISTOR
	00567323	RPC05T 223 J	MTL.FILM RESISTOR
	00567456	RPC05T 224 J	MTL.FILM RESISTOR
	00567556	RPC05T 105 J	MTL.FILM RESISTOR
			R10 on CB R3 on CB R139,R108 on MB R62,R46 on MB. R349 on AB
			1 1 2 2 +1
	00567645	RPC05T 475 J	MTL.FILM RESISTOR
	15399405	RPC10T 222 J 1/10W	MTL.FILM RESISTOR
			R24,R27 on MB R131,R124,R168,R50,R260,R21,R98,R179,R202,R249,R284,R294,R12,R45,R212,R88 on AB
			2 16
	15399421	RPC10T 103 J 1/10W	MTL.FILM RESISTOR
	15399437	RPC10T 473 J 1/10W	MTL.FILM RESISTOR
	15399453	RPC10T 224 J 1/10W	MTL.FILM RESISTOR
	15399457	RPC10T 334 J 1/10W	MTL.FILM RESISTOR
	01013889	RR1220P-181-D 180 OHM (CHIP)	MTL.FILM RESISTOR
	01013890	RR1220P-221-D 220 OHM (CHIP)	MTL.FILM RESISTOR
			R355 on AB R356 on AB R354 on AB R352 on AB R33 on MB R167 on MB
			1 1 1 1 1 1

RESISTOR					
	01018234	RR1220P-331-D 330 OHM (CHIP)	MTL.FILM RESISTOR	R34 on MB. R225,R63,R73,R95,R113,R144,R154,R176,R1 0,R194,R29,R235,R317,R308,R278,R262 on AB	1 +1 6
	00348767	RR1220P-471-D 470 OHM (CHIP)	MTL.FILM RESISTOR	R257,R291 on AB	2
	15419702	RR1220P-102-D 1K OHM (CHIP)	MTL.FILM RESISTOR	R36 on MB. R336,R327 on AB	1 +2
	15419706	RR1220P-122-D 1.2K OHM (CHIP)	MTL.FILM RESISTOR	R26,R273,R314,R232,R191,R151,R70,R110 on AB	8
	00564189	RR1220P-152-D 1.5K OHM (CHIP)	MTL.FILM RESISTOR	R35 on MB	1
	00904701	RR1220P-302-D 3K OHM (CHIP)	MTL.FILM RESISTOR	R168 on MB	1
	00897245	RR1220P-222-D 2.2K OHM (CHIP)	MTL.FILM RESISTOR	R256,R94,R8,R9,R338,R329,R306,R255,R224, R223,R175,R174,R143,R61,R142,R62,R93,R3 07 on AB	18
	00564212	RR1220P-332-D 3.3K OHM (CHIP)	MTL.FILM RESISTOR	R341 on AB	1
	15419707	RR1220P-472-D 4.7K OHM (CHIP)	MTL.FILM RESISTOR	R146,R309,R268,R186,R102,R65,R16,R227,R 343 on AB	9
	01788834	RR1220P-622-D 6.2K OHM (CHIP)	MTL.FILM RESISTOR	R23,R214,R14,R47,R52,R90,R101,R126,R133, R171,R181,R204,R251,R263,R286,R296 on AB	16
	15419729	RR1220P-822-D 8.2K OHM (CHIP)	MTL.FILM RESISTOR	R283,R11,R30,R44,R55,R298,R103,R120,R26 4,R248,R215,R201,R183,R167,R134,R87 on AB	16
	15419701	RR1220P-103-D 10K OHM (CHIP)	MTL.FILM RESISTOR	R188,R129,R178,R177,R161,R157,R153,R130 ,R123,R116,R112,R107,R97,R148,R242,R292, R289,R281,R277,R270,R207,R258,R193,R238 ,R234,R229,R211,R210,R96,R199,R259, R340,R348,R347,R325,R344,R80,R331,R320, R316,R311,R18,R72,R293,R19,R76,R67,R49, R48,R39,R35,R28,R20 on AB	53
	00897234	RR1220P-183-D 18K OHM (CHIP)	MTL.FILM RESISTOR	R141 on MB	1
	15419717	RR1220P-273-D 27K OHM (CHIP)	MTL.FILM RESISTOR	R333,R322 on AB	2
	15419726	RR1220P-393-D 39K OHM (CHIP)	MTL.FILM RESISTOR	R71,R152,R192,R233,R315,R27,R274,R111 on AB	8
	00564234	RR1220P-473-D 47K OHM (CHIP)	MTL.FILM RESISTOR	R236,R33,R53,R74,R82,R114,R155,R1,R218, R137,R246,R279,R301,R318,R330,R339,R197 ,R165 on AB	18
	00560890	RR1220P-823-D 82K OHM (CHIP)	MTL.FILM RESISTOR	R158,R321,R282,R200,R117,R77,R36,R239 on AB	8
	00120289	RR1220P-104-D 100K OHM (CHIP)	MTL.FILM RESISTOR	R213,R247,R166,R240,R230,R160,R220,R250 ,R205,R203,R189,R187,R180,R170,R334,R22 8,R302,R332,R324,R323,R312,R241,R303,R2 52,R295,R288,R287,R285,R271,R269,R261, R310,R38,R169,R66,R58,R54,R78,R46,R79,R 37,R24,R22,R17,R13,R3,R2,R51,R122,R159,R 149,R147,R139,R138,R68,R125,R219,R121,R 108,R106,R99,R89,R86,R83,R132,R206 on AB	66
	01013878	RR1220Q-100-D	MTL.FILM RESISTOR	R182,R345,R342,R297,R290,R267,R243,R226 ,R209,R208,R43,R162,R145,R127,R100,R81,R 64,R42,R128,R15 on AB	20
	01345990	RR1220Q-120-D	MTL.FILM RESISTOR	R25,R109,R190,R231,R272,R69,R313,R150 on AB	8
	01455856	RR1220Q-680-D	MTL.FILM RESISTOR	R37 on MB	1
	15419715	RR1220R-105-D	MTL.FILM RESISTOR	R346 on AB	1
	15399953	MCR100-220J 1W	RESISTOR (CHIP)	R162 on MB	1
	01896278	MCR18EZHZ 2R2	MTL.FILM RESISTOR	R176 on MB	1
	02564078	BPR28F 0.05 OHM K	MTL.PLATE RESISTOR	R54 on MB	1
	01898345	ERY43SA125VA	THERMISTOR RESISTOR	R143 on MB. R351 on AB	1 +1
	01903523	ERTJ1VR153J	THERMISTOR RESISTOR	R12 on CB	1
	15399965	RCE9A103JAG7A (10K OHM x8)	RESISTOR ARRAY	RA2,RA1 on MB	2
	15399968	RCE9A104JA (100K OHM x8)	RESISTOR ARRAY	RA15,RA6,RA12,RA9 on MB	4
#	03127101	RS4N-1000-J-2	RESISTOR ARRAY	RA3,RA4 on MB	2
#	03127123	RS4N-1002-J-2	RESISTOR ARRAY	RA19,RA18,RA20,RA21,RA35,RA22,RA36, RA34,RA33,RA32,RA31,RA30,RA29,RA28, RA27,RA26,RA11,RA25,RA24,RA23,RA10 on MB	21
POTENTIOMETER					
	02901734	EVANSA CB1 B14	60M/M MOTOR FADER	VR10,VR11,VR1,VR6,VR9,VR12,VR8,VR7,V R5,VR4,VR2,VR13,VR3 on FB	13
	01904401	EVU F2A E25 B53	9M/M ROTARY POT.	VR1 on CB	1
	02901678	RK09L12D0 50KA L=25	9M/M ROTARY POT.	VR9 on AB	1
#	03126412	RK09L1140 10KB L=25	9M/M ROTARY POT.	VR10 on AB	1
#	03124945	RK09L1140 50KRD L=25 RR1	9M/M ROTARY POT.	VR1,VR2,VR3,VR4,VR5,VR6,VR7,VR8 on AB	8
CAPACITOR					
	01674612	ECJ1VB1H103K	CERAMIC CAPACITOR	C136,C204,C203,C163,C151,C150,C139,C13 7,C87,C138 on MB	18
	00568456	ECJ1VF1C474Z	CERAMIC CAPACITOR	C164 on MB	1

CAPACITOR

	01674701	ECJ1VF1E104Z 0.1UF/16VK	CERAMIC CAPACITOR	C128,C167,C162,C160,C159,C158,C157,C156,C154,C153,C152,C226,C124,C127,C146,C134,C140,C141,C142,C126,C145,C133,C147,C148,C132,C174,C131,C168,C129,C143,C188,C225,C206,C205,C202,C201,C200,C199,C198,C197,C196,C195,C171,C192,C169,C185,C183,C182,C181,C180,C179,C178,C177,C176,C175,C121,C173,C122,C170,C194,C46,C66,C34,C36,C37,C38,C31,C41,C30,C48,C51,C52,C53,C56,C59,C123,C39,C17,C1,C3,C4,C5,C6,C32,C14,C68,C18,C19,C20,C21,C23,C24,C27,C29,C9,C110,C99,C64,C102,C103,C105,C186,C109,C98,C111,C112,C113,C115,C116,C117,C118,C119,C106,C79,C69,C70,C71,C73,C74,C100,C78,C97,C80,C82,C83,C84,C91,C92,C94,C95,C77,C184 on MB.	132 +6 7
	02568812	ECJ2FB1C474K	CERAMIC CAPACITOR	C191,C186,C187,C289,C188,C195,C305,C266,C263,C260,C259,C258,C267,C282,C283,C127,C290,C298,C300,C196,C306,C308,C312,C320,C257,C255,C253,C246,C222,C216,C215,C211,C210,C183,C61,C34,C181,C40,C117,C46,C32,C60,C36,C66,C67,C71,C116,C72,C75,C100,C107,C47,C149,C179,C114,C109,C44,C173,C144,C118,C26,C128,C138,C139,C143,C2,C111 on AB	2
	01674167	ECUV1H100DCV	CERAMIC CAPACITOR	C89,C165 on MB	6
	01674334	ECUV1H101JCV	CERAMIC CAPACITOR	C50,C49,C187,C61,C62,C191 on MB	18
				C219,C214,C223,C222,C221,C220,C224,C218,C217,C215,C213,C212,C211,C210,C209,C208,C207,C216 on MB.	+5
				C315,C318,C319,C314,C310 on AB	
	01674467	ECUV1H102JCV	CERAMIC CAPACITOR	C28 on MB	1
	15359707	ECUV1H104KN 0.1	CERAMIC CAPACITOR	C5 on CB	1
	01674190	ECUV1H150JCV	CERAMIC CAPACITOR	C88,C161 on MB	2
	01674212	ECUV1H220JCV	CERAMIC CAPACITOR	C217,C169,C240,C28,C105,C153,C146,C177,C248,C225,C82,C4,C16,C39,C74,C98 on AB	16
	01674423	ECUV1H471JCV	CERAMIC CAPACITOR	C193,C26,C25 on MB	3
	01674434	ECUV1H561JCV	CERAMIC CAPACITOR	C311 on AB. C1 on CB	1 +1
	00674423	ECA0JM102B 1000U/6.3V	CHEMICAL CAPACITOR	C35,C14 on FB	2
	13639570	ECA1EM101B	CHEMICAL CAPACITOR	C28,C29,C30,C31,C32,C33,C34 on FB	7
	01345956	ECEA1CPZ470B 47PF/16V	CHEMICAL CAPACITOR	C322,C92,C323,C18,C19,C59,C321,C93,C132,C133,C165,C204,C205,C236,C237,C275,C276,C164,C57 on AB	19
	00568801	ECEA1EPZ470B	CHEMICAL CAPACITOR	C3,C77,C119,C150,C192,C223,C264,C45 on AB	8
	02562478	ECEA1HPZ101B	CHEMICAL CAPACITOR	C228,C247,C38,C152,C224,C185,C176,C251,C159,C113,C104,C88,C42,C21,C15,C293,C280,C81 on AB	18
	01346001	ECEA1HPZ220B 22UF/50V	CHEMICAL CAPACITOR	C212,C136,C140,C155,C160,C168,C175,C197,C126,C208,C232,C229,C241,C269,C284,C291,C294,C301,C7,C200,C49,C122,C249,C27,C12,C53,C64,C68,C83,C86,C96,C102,C24 on AB	33
#	15369186	ECEV1VA4R7SR	CHEMICAL CAPACITOR	C7,C8,C9,C10,C6 on CB	5
	01900834	RA2-16V101M-T2	CHEMICAL CAPACITOR	C193,C285,C304,C302,C288,C265,C262,C213,C190,C142,C141,C125,C120,C70,C69,C58,C52,C214 on AB	18
	01909690	RA2-16V471MC-T2	CHEMICAL CAPACITOR	C131,C91,C163,C203,C235,C274,C316,C17,C56 on AB	9
	02230667	RA2-35V4R7MT2	CHEMICAL CAPACITOR	C317 on AB	1
	02453812	RA2-50V471M-T4	CHEMICAL CAPACITOR	C307 on AB	1
	01904690	RA2-63V100M-T2	CHEMICAL CAPACITOR	C1,C261,C218,C189,C115,C145,C43,C73 on AB	8
	01902590	RA2-6V101MC-T2	CHEMICAL CAPACITOR	C297 on AB	1
	02121090	RA2-6V103M	CHEMICAL CAPACITOR	C54 on MB	1
	02891756	RC2-6V331M-T2	CHEMICAL CAPACITOR	C101,C102 on PB	2
	02231223	RFS-16V152MK6ES	CHEMICAL CAPACITOR	C313,C309 on AB	2
	02345145	RV2-16V101M-R	CHEMICAL CAPACITOR	C42,C93 on MB	2
	02344978	RV2-50V2R2M-R	CHEMICAL CAPACITOR	C57 on MB	1
	02345234	RV2-6V101M-R	CHEMICAL CAPACITOR	C47,C55,C60,C63,C65,C67,C33,C72,C40,C155,C149,C144,C135,C114,C125,C75,C120,C107,C104,C101,C96,C81,C76,C130,C22,C13,C12,C8,C7,C2 on MB. C2 on CB	30 +1
	02564867	RV-35V470MG68-R	CHEMICAL CAPACITOR	C3,C4 on CB	2
#	02904923	RV3-6V331MF80-R	CHEMICAL CAPACITOR	C166,C58,C228,C190,C229,C230,C35,C172,C90,C189,C227 on MB	11
	02565545	RV-6V331MG68-R	CHEMICAL CAPACITOR	C801 on CDRW Board	1
	13529132	RPE132-901F104Z50	MLT.LAY.CERAMIC CAPACITOR	C109,C105,C107,C106,C108 on PB.	5
				C15,C36,C25,C26,C16,C24,C23,C22,C21,C20,C19,C18,C17,C27 on FB	+1 4
#	01458323	RPEF11H103Z2M1A01A	MLT.LAY.CERAMIC CAPACITOR	C6,C1,C2,C3,C4,C5,C7,C8,C9,C10,C11,C12,C13 on FB	13
	01784156	ECHU1C104JX5	POLYEST. CAPACITOR	C299 on AB	1
	02018178	ECHU1C223JX5	POLYEST. CAPACITOR	C295,C286 on AB	2
	01898434	ECHU1H101JX5	POLYEST. CAPACITOR	C101,C292,C220,C303,C243,C279,C172,C148,C78,C30,C9 on AB	11

CAPACITOR					
	01899345	ECHU1H121JX5	POLYEST. CAPACITOR	C244,C54,C277,C281,C13,C272,C161,C22,C25,C209,C206,C201,C166,C233,C238,C97,C129,C137,C134,C94,C89,C65,C62,C171 on AB	24
	01784145	ECHU1H152JX5	POLYEST. CAPACITOR	C51,C85,C124,C157,C271,C231,C10,C199 on AB	8
	01905534	ECHU1H221JX5	POLYEST. CAPACITOR	C76,C250,C242,C227,C219,C184,C170,C158,C147,C112,C87,C41,C20,C6,C99,C29 on AB	16
	01896589	SK4-0J106MZ4-RA	TANTALUM CAPACITOR	C106,C252,C33,C35,C182,C108,C110,C178,C256,C254,C180,C31 on AB	12
	02562845	E2012C101	EMI FILTER	C43,C45,C44 on MB	3
INDUCTOR, COIL, FILTER					
	01893634	LQH4N151K04	COIL	L1 on CB	1
	01904001	TSL1315S-101	CHOKO COIL	L7 on MB	1
	00907856	BLM21A601SPT	FERRITE-BEAD	L4,L5,L6,L2,L1,L8,L3 on MB.	7
	01783601	BLM21B601SPT	FERRITE-BEAD	L5,L4,L1,L2,L3 on AB L10 on MB	+5 1
CRYSTAL, RESONATOR					
	01126267	MA-406 7.056MHZ	CRYSTAL	X7 on MB	1
	01124812	MA-406 10MHZ	CRYSTAL	X3 on MB	1
	02562812	MA-406 14.31818MHZ	CRYSTAL	X2 on MB	1
	01561956	SG-8002JC-50M-PHCL	OSCILLATOR	X5 on MB	1
	02563556	SG-8002JC-66.6M-PHCL	OSCILLATOR	X6,X1 on MB	2
ENCODER					
	01231367	EC16B24204 (L=15) (W/N&W)	ROTARY ENCODER	EN101 on PB	1
CONNECTOR					
	01909601	12FE-BT-VK-N	CONNECTOR	CN12 on MB. CN3 on AB	1 +1
	01908645	16FE-BT-VK-N	CONNECTOR	CN15 on MB	1
	02010867	16FE-ST-VK-N	CONNECTOR	CN1 on FB	1
#	03121101	23FLZ-RSM1-TB	CONNECTOR	CN1 on CB	1
	02120056	24FE-BT-VK-N	CONNECTOR	CN16 on MB	1
	02122467	24FE-ST-VK-N	CONNECTOR	CN101 on PB	1
	02019012	26FE-BT-VK-N	CONNECTOR	CN18,CN3 on MB	2
	02018723	26FE-ST-VK-N	CONNECTOR	CN4 on AB. CN2 on FB	1
	13369570	B2B-PH-K-S (2P)	CONNECTOR	CN5 on MB	1
	13369565	B11B-PH-K-S JST	CONNECTOR	CN2 on MB. CN3 on CB	1 +1
	02349545	P/N 75401-0X0-B	CONNECTOR	CN8 on MB	1
#	03124967	KX14-50KL7.9H1	CONNECTOR	CN802 on CDRW Board	1
	02237512	75501-0X0-B	CONNECTOR P/N	CN9,CN1,CN14 on MB. CN801 on CDRW Board	3 +1
	13379104	TX14-40R-6ST-MH1	B TO B CONNECTOR	CN11,CN10 on MB	2
WIRING, CABLE					
#	03126390	11x200-P2.0-PHR-PHR	WIRING		1
△	02563867	AC ASSY	WIRING		1
#	03126389	CDRW	WIRING		1
#	03128167	NIB3-10-005	WIRING		1
#	03126345	BNCD-P=1.25-K-12-120	BAN CARD		1
#	03126334	BNCD-P=1.25-K-26-120	BAN CARD		1
#	03126356	BNCD-P=1.25-K-26-240	BAN CARD		1
#	03126367	BNCD-P=1.25-K-24-500	BAN CARD		1
#	03126378	BNCD-S-P=1.25-K-16-260	BAN CARD		1
TRANSFORMER					
	02019478	(7KQ5) 19832A	PULSE TRANS	L9 on MB	1
SCREW					
	40454956	SCREW M2x2.5	SPECIAL PAN ZNC		4
	40011056	SCREW 3x6	BINDING TAPTITE B ZC		40 +2
	40012534	SCREW 3x6	BINDING TAPTITE S FE BZC		18
	40239889	SCREW M3x6	BUTTON-TRUS TAPTITE S BZC		4
	40013056	SCREW M3x6	PAN MACHINE W/SW+PW ZC		13
	40011101	SCREW 3x8	BINDING TAPTITE B BZC		17
	40011312	SCREW 3x8	BINDING TAPTITE P BZC		5
	40011201	SCREW 3x8	PAN TAPTITE P BZC		16
	40458345	SCREW M4x8	PAN MACHINE W/SW+SMALL PW NI		1
	40342989	SCREW M4x8	PAN W/EX.TOOTH WASHER		1
#	40459590	SCREW M4x20	HEX SOCKET HEAD NI		10
	40344134	SCREW M4-40x7.9	HEX SOCKET NI		4

SCREW				
	40451412	SCREW 5x10	BINDING A BZC WOOD	4
	40450367	SCREW 6-32UNC	1008SR/KM003	4
	40456923	NUT M9x11x2P.75	NI	9
	40016412	JACK WASHER M9x13.5x0.45		9
PACKING				
#	03121501	PAD L		1
#	03121512	PAD R		1
#	03121523	PAD UPPER		1
#	03121490	PACKING CASE		1
MISCELLANEOUS				
	40238545	CAUTION LABEL	SHOCK HAZARD & ICES	1
	01455523	CORD BUSHING	EDS-1717U	1
	00902790	CORD BUSHING	EDS-1208U	1
#	03232590	CUSHION ANGLE		1
#	03232612	CUSHION HDD		1
	02562956	DC FAN MOTOR	9A0812L403	1
	40122434	DOUBLE-FACED TAPE	#500 W7MM 20M 30P	1
	22355334	FOOT MKS	235-334	4
	40016512	INSULOK TIE	80M/M T-18S	2
#	40560801	LABEL PS2		1
#	40561078	LABEL	POP SEAL	1
	22175349	LEAF SPRING	217-349	1
△	00238990	LITHIUM BATTERY	CR2032 220MAH/3V	1
	12569420	LITHIUM BATTERY HOLDER(HL32-A2)	for CR2032	1
	12189817	PCB SPACER	RSPLS-10U	1
#	03121467	SHIELD PANEL		1
			BT1 on MB	
			on MB	
ACCESSORIES (STANDARD)				
#	72231978	OWNER'S MANUAL	JAPANESE	1
#	72232856	OWNER'S MANUAL	ENGLISH	1
#	40561101	LEAFLET DEMO PERFORMANCES	ENGLISH	1
△	02670401	AC CORD SET 100V	YA-101/YP-3N/YC-13	1
△	00894378	AC CORD SET 120V	SP301+IS14 SJT18/3	1
△	00894389	AC CORD SET 230V	SP22+IS14 H05VV-F3G1.0	1
△	00907001	AC CORD SET 240VE	KP-610 GTTBS-3 KS-31A	1
△	23495124	AC CORD SET 240VA	SC-144-JO1 ES303-10HMA	1
	02346478	PS/2 MOUSE	LOGITECH SAW59A	1
#	03126745	DEMO CD-ROM		1
#	*****	BLANK CD-R	MEDIA CD-R SR74KC1	1
#	40561067	SHORT CUT SEAL		1
	40232334	WARRANTY CARD	(JAPAN ONLY)	1

CHECKING THE VERSION NUMBER

While holding down the CH1 [CH EDIT] button and the [TRACK STATUS] button, turn on the power of the VS-2400CD.

The display shown in "Fig-1" will appear.

Version Information

Boot

Version : 1.001
 Create Date : 12/13/2002
 Create Time : 13:58:07

System

Version : 1.001
 Create Date : 12/13/2002
 Create Time : 13:58:07

Sub System

Version : 1.001

Check Sum

Total : 4A1Eh
 Boot : 0DF7h
 System : D987h
 Parameter : 62A0h

Sub System : 6C88h

[ENTER]

[Fig-1]

Boot : Version number and creation date of the program boot area.
 System : Version number and creation date of the main program system area.
 Sub System : Version number of the program system area.
 Check sum : Check sum of each program area.

Total does not include the Sub System check sum.

NOTE

The VS-2400CD has rewritable program areas for the sub-program that performs panel-related operations, and for the sub-program that performs non-panel operations.

You must update both programs to the latest version.

SAVING USER DATA & RELOADING SAVED DATA

Saving data to CD-R/RW

(Saving the project)

Save the contents of the user's HDD to CD-R/RW.

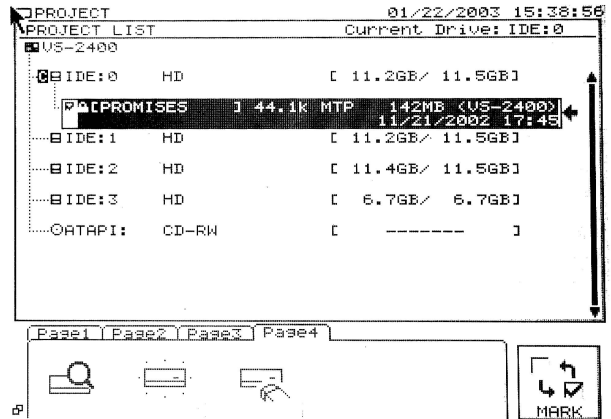
NOTE

Backup can be performed only for an individual partition.

If the HDD contains more than one partition, you must back up each partition to separate media.

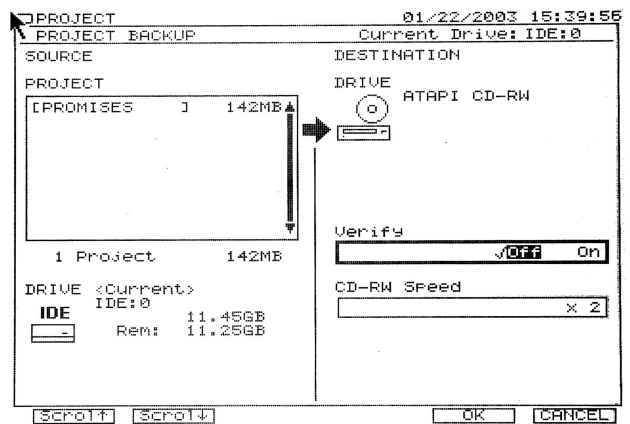
- From the normal screen, hold down the [SHIFT] button and press the [PROJECT] button.

The Project Condition screen will appear.



[Fig.8]

- Move the cursor to the partition that you want to back up, and press the [F6](LIST) button.
- Move the cursor to the project that you want to back up, and press the [ENTER/YES] button to mark that project. If you want to back up more than one project, mark the other projects as well.
- Press the [PAGE] button to select Page 3, and press the [F3 (BACKUP)] button. The Project Backup screen will appear.



[Fig.9]

- [F1 (Scrol Up)], [F2 (Scrol Down)]
- If the list of projects to back up does not fit in one screen, you can use the scroll buttons to scroll the screen and verify that the desired projects are

selected.

- [F4 (SelDrv)]
Selects the backup-destination drive.
Use the TIME/VALUE dial to specify the copy-destination.
 - [F5 (OK)]
Executes the backup.
 - [F6 (CANCEL)]
Returns to the Project Condition without backing up.
The parameters that you set in Project Condition will be discarded.
 - Verify
If this is "On," the written data will be checked to verify that it is readable.
 - CD Speed
Selects the speed at which the CD-R disc will be written.
This parameter will be displayed only if the CD-R/RW drive is selected as the writing-destination.
5. Select the backup destination.
Press the [F4 (SelDrv)] button to access the Drive Select screen.
Use the [TIME/VALUE] knob to move the cursor to the external SCSI device that will be the backup destination, and press the [F5 (SELECT)] button.

NOTE

If the backup destination you select is a CD-RW disc to which data has already been written, a message of "Finalized CD!!" or "Not Blank CD!!" will appear. If you press the [ENTER/YES] button, the contents that had been saved on the CD-RW will be completely erased. If you press the [EXIT/NO] button the disc will not be erased, but you will not be able to back up to the specified CD-RW disc.

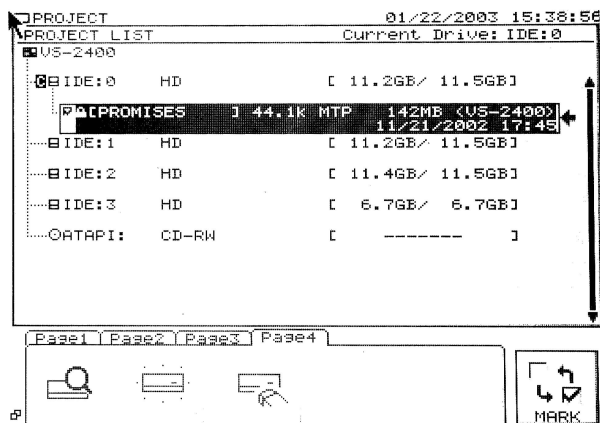
- 6. Press the [F5 (OK)] button.
If the "STORE Current?" (Store the current project?) dialog box appears, press the [EXIT/NO] button.
- 7. If the data of the project(s) being saved is too large to fit on one disc, the disc will be ejected and the display will indicate "Please Insert Disk"
Insert the next disc, and press the [ENTER/YES] button.
At this time, the capacity of the saving media will be checked, so we recommend that you label each disc with a number that indicates the order in which it should be inserted.
- 8. When backup ends, the disc will be ejected, and you will return to the Project Condition screen.

Loading data

(Restoring the project backup)

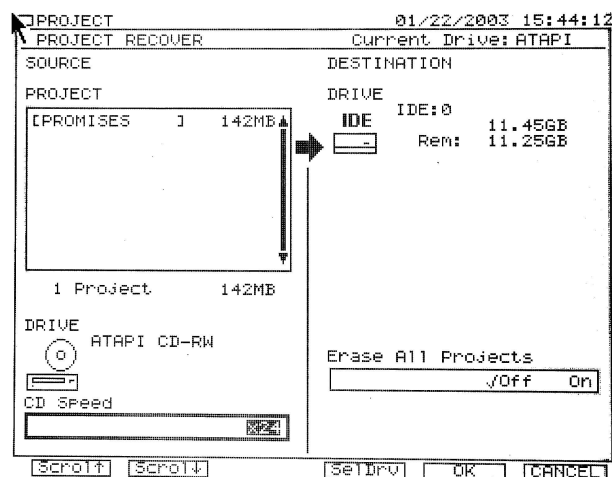
This procedure will recover a project that was backed up to CD-R/RW, loading it back into the internal hard disk of the VS-2400CD in a form that allows the project to be played or edited.

- 1. From a normal screen, hold down the [SHIFT] button and press the [PROJECT] button. The Project Condition screen will appear.



[Fig.8]

- 2. Move the cursor the CD-RW on which the project backup is saved.
- 3. Press the [PAGE] button to select Page3, and then press the [F2 (Recover)] button.
The Project Recover screen will appear.



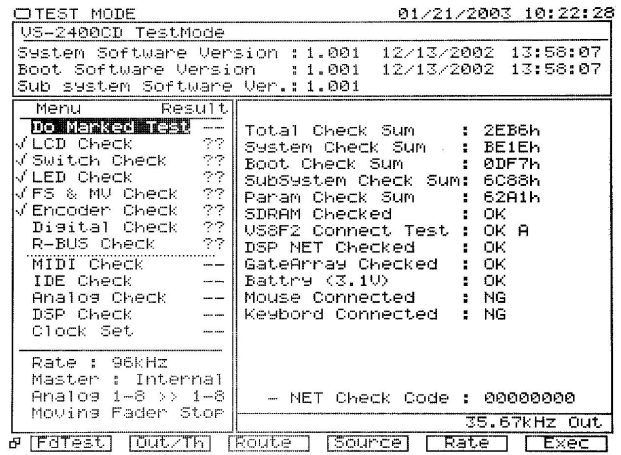
[Fig.10]

- [F1 (Scrol Up)], [F2 (Scrol Down)]
If the list of recoverable projects does not fit in the screen, use the scroll buttons to scroll the screen.
- [F4 (SelDrv)]
Selects the recover-destination drive.
Use the [TIME/VALUE] knob to specify the recover-destination.
- [F5 (OK)]
Executes the recover operation.
- [F6 (CANCEL)]
Returns to Project Condition without recovering.
The parameters you set in Project Backup will be discarded.
- Erase All songs
If this is "On" the recover-destination drive will be initialized before

recovery is performed.

Set this "Off" if you want to perform the recovery while leaving the project(s) of the recover-destination drive as they are.

- CD Speed
Selects the speed at which the CD-R/RW disc will be read.
4. Select the recover-destination.
Press the [F4 (SelDrv)] button to access the Drive Select screen.
To exit Drive Select, press the [F6 (CANCEL)] button.
 5. Press the [F5 (OK)] button.
The "STORE Current?" (Store the current project?) dialog box will appear. Press the [EXIT/NO] button.
 6. If the backup spanned more than one disc, the disc will be ejected and a message of "Insert Disk #" (# is the disc number) will appear.
Insert the disc of the appropriate number and press the [ENTER/YES] button.
When project recover is completed, you will return to Project Condition.



[Fig.1]

TEST MODE

Required equipment

- VS8F-2 (three pcs.)
- R-BUS device (recommended: ADA-7000)
- Foot switch
- Audio device (with digital output)
- A device that can output a SMPTE signal
- Cables (audio)
- Tester (a device that can measure voltages)

Starting test mode

To enter Test mode, hold down the [PAGE] and [F1] buttons located below the LCD, turn on the power of the VS-2400CD.

Exiting test mode

Turn off the power of the VS-2400CD.

Basic operation

When the test program is started up as described above, the LCD screen of "Fig.1" will appear.
The upper part of the LCD screen always shows the current version number.
The lower left of the LCD screen shows the test menu and the current audio input/output checking mode.
The lower right of the screen shows the contents of the selected menu.
Use the [TIME/VALUE] knob to select a test item, and use the [F6] button to execute it.

Explanation of items checked when Test mode starts

Here we explain the checked items shown in the lower right of the screen when Test mode is started.

[SDRAM Checked]

Indicates the result of checking SDRAM.

If there is a problem with this, Test mode will not start up.

[VS8F2 Connect Test]

Checks the VS8F-2 connection.

1. The name of the connector on which the VS8F-2 is installed will be displayed.
2. If all are installed, "A" and "B" will be displayed.
3. If the result is satisfactory, the display will indicate "OK." If there is a problem, or if none are installed, the display will indicate "NG."

[DSP NET Checked]

Main board IC53, IC54, IC55, IC56, IC57, IC58, and VS8F-2 will be checked.

If satisfactory, the display will indicate "OK." If a problem is found, the display will indicate "NG."

[GateArray Checked]

Main board IC38 and IC46 will be checked.

If satisfactory, the display will indicate "OK." If a problem is found, the display will indicate "NG."

[Battery]

The lithium battery on the main board will be checked.

1. If satisfactory, the display will indicate "OK" and show the voltage of the battery.
2. If unsatisfactory, the display will indicate "NG" and show the voltage of the battery.
3. If no battery is installed, the display will indicate "<No Battery>".

[Mouse Connected]

The mouse connection will be checked.

1. If a mouse is connected and is operating normally, the display will indicate "OK."
2. If a mouse is not connected, or if there is a problem, the display will indicate "NG."

[Keyboard Connected]

The keyboard connection will be checked.

1. If a keyboard is connected and is operating normally, the display will indicate "OK."
2. If a keyboard is not connected, or if there is a problem, the display will indicate "NG."

Explanation of test items

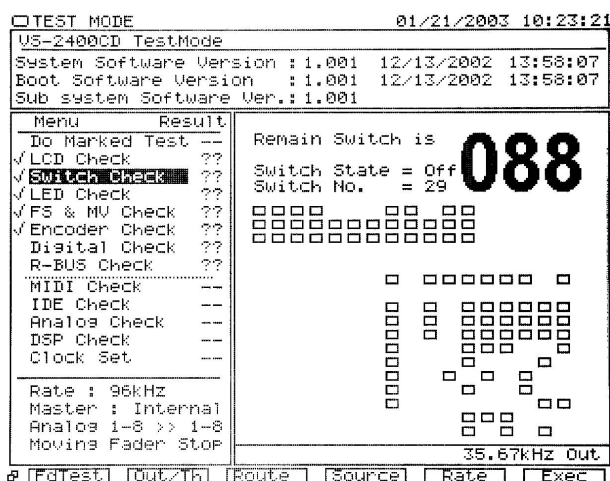
[01:LCD Check]

Checks the LCD screen display.

Each time you press the switch, three types of screen will alternate; white, black, and text.

[02:Switch Check]

Checks panel board switch operation.



[Fig.2]

1. Check ON/OFF for all switches on the panel.
2. If two or more switches are pressed simultaneously during this test, the LED will blink to prompt you not to do so.

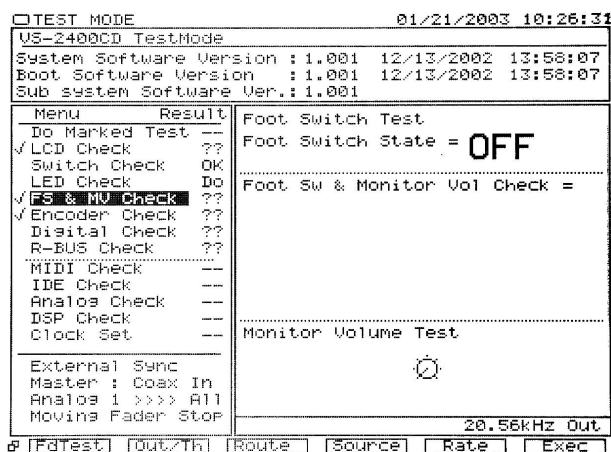
[03:LED Check]

Checks panel LED operation.

1. Check that all panel LEDs are lit.
2. Press the [PLAY] button to light the LEDs one at a time.
3. You can press the [STOP] button to go backward.
4. When you have checked all LEDs, they will all be lit.

[04:FS & MV Check]

Checks operation of the foot switch and monitor volume.



[Fig.3]

1. The display will indicate "ON" when you press the foot switch, and "OFF" when you release it.
2. Verify that the monitor volume causes the display value to change in a range of "-90" to "+60".

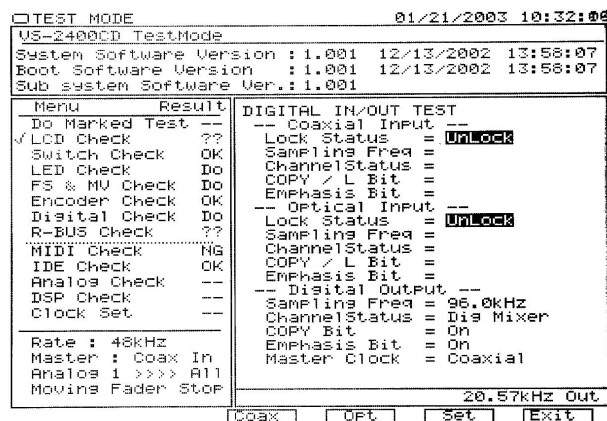
[05:Encoder Check]

Checks encoder operation.

Turn the [TIME/VALUE] knob at least three clicks to left and right.

[06:Digital Check]

Checks digital audio operation (Coaxial, Optical).



[Fig.4]

1. Connect devices to Coaxial IN/OUT.
2. Press the [F3 (Coax)] button.
3. Verify that the Coaxial LOCK Status is "LOCK," and that the audio from Digital In is being output from Digital Out.
4. Connect devices to Optical IN/OUT.
5. Press the [F4 (Opt)] button.
6. Verify that the Optical LOCK Status is "LOCK," and that the audio from Digital In is being output from Digital Out.

[07:IDE Check]

Checks IDE hard disk drive operation.



Since this test will rewrite the contents of the hard disk, you must back up the data before you execute this test.

[07:R-BUS Check]

Checks R-BUS input/output operation.

1. Connect an R-BUS device to R-BUS1.
2. Press the [F5 (Rate)] button several times to set Rate to "44.1kHz" in the lower left of the screen.
3. Press the [F4 (Source)] button several times to set Master to "Internal" in the lower left of the screen.
4. Press the [F3 (Route)] button several times to set Routing to "R-BUS1>>>>> 1-8" in the lower left of the screen.
5. In this state, when audio is input from the R-BUS device connected to R-BUS1, it will pass through the VS-2400CD and be output one-to-one from the R-BUS device connected to R-BUS1.
Verify that the audio of all tracks is passed.
6. Connect an R-BUS device to R-BUS2.
7. Press the [F3 (Route)] button several times to set Routing to "R-BUS2>>>>> 1-8" in the lower left of the screen.
8. In this state, when audio is input from the R-BUS device connected to R-BUS2, it will pass through the VS-2400CD and be output one-to-one from the R-BUS device connected to R-BUS2.
Verify that the audio of all tracks is passed.

[08:MIDI Check]

Checks MIDI IN and OUT operation.

1. Use a MIDI cable to connect MIDI IN and MIDI OUT, and then press the [F6] button.
2. If the result is satisfactory, the display will indicate "OK."

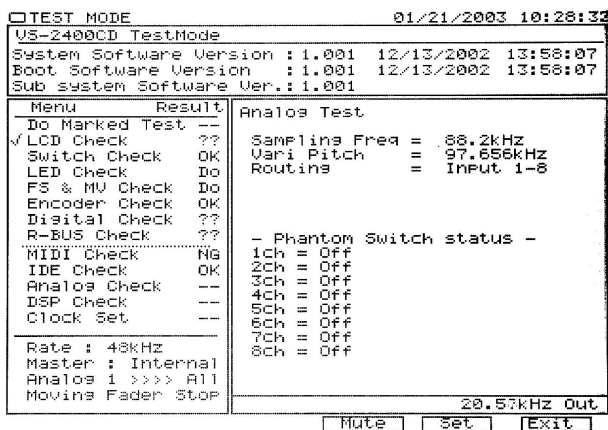
[09:IDE Check]

Checks the connections of the hard disk drive and CD-RW drive.

If satisfactory, the model number of each drive unit will be displayed.

[10:Analog Check]

Checks analog input/output operation.



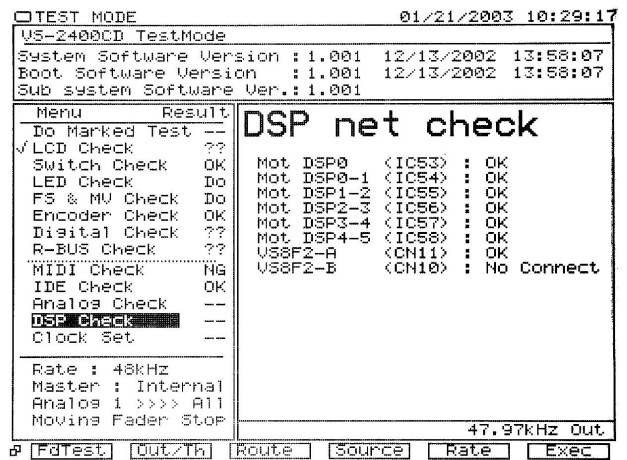
[Fig.5]

1. Set Sampling Freq to "96.0 KHz," and set Routing to "Input 1 - 8."
2. Press the [F5 (Set)] button.

3. In this state, verify that inputs 1 - 8 are output in a one-to-one correspondence from outputs 1 - 8.
4. Set Sampling Freq to "44.1kHz," and set Routing to "Input 9 -16."
5. Press the [F5 (Set)] button.
In this state, verify that inputs 9 -16 are output in a one-to-one correspondence from outputs 1 - 8.
6. Set Sampling Freq to "Vari."
7. Press the [F5 (Set)] button.
In this state, verify that audio is sent from the output.
8. Move the cursor to the Phantom Switch status, and set the Phantom Switch "ON."
In this state, verify that there is voltage of at least 38 volts between pins 1 and 2 of XLR connector.

[11:DSP Check]

Checks operation of the main board and effect board DSPs.



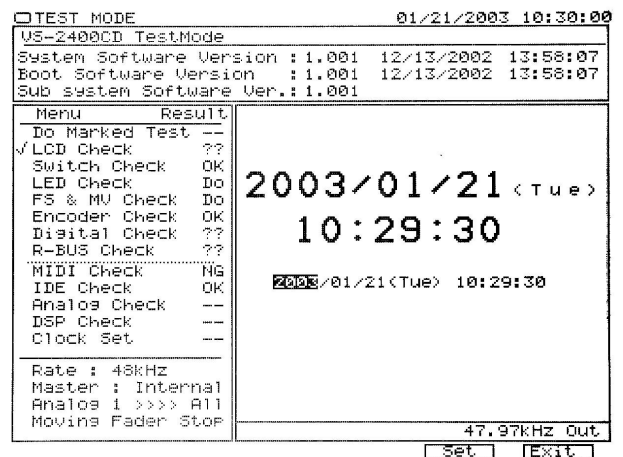
[Fig.6]

If satisfactory, the display will indicate "OK." If there is a problem, the display will indicate "NG."

[12:Clock Set]

The VS-2400CD contains a clock.

Since the internal clock runs on the battery, you must set the clock after replacing the battery.



[Fig.7]

1. Move the cursor to the field you want to set, and use the [TIME/VALUE] knob to change the value.
2. Press the [F5 (Set)] button to set the date and time that you input.
3. Verify that the date and time shown in the upper right of the LCD screen are the values that you input.

[13:Fader Test]

Checks motor fader operation.

1. Press the [F1 (FdTest)] button.
2. The display will change to "Moving Fader EXEC," and the fader test will begin.
3. Starting at the left, each moving fader will move to the +6, 0, and -6 dB positions.
Do not touch any of the faders during this test.

SYSTEM SOFTWARE UPDATE PROCEDURE

Updating the system via SMF

Required items

- A MIDI sequencer that can play back SMF data
- Update CD-ROM for SMF (P/No.17041257)

There are a total of 32 files.

Note that the files are named VS-2400CD00.MID -- VS-2400CD31.MID.

Use the following procedure to update the system.

1. Use a MIDI cable to connect the MIDI OUT connector of your sequencer (that is able to play back SMF data) to the VS-2400CD's MIDI IN connector.
You will find it convenient to use a MIDI sequencer that is able to play back SMF data consecutively, such as the SB-55 or MC-80.
2. While holding down the CH2 and CH3 [TRACK STATUS] buttons and the CH5 [CH EDIT] button, turn on the power of the VS-2400CD.
3. The display will indicate "SYSTEM Update ?" Press the [ENTER/YES] button.
4. The display will indicate "Waiting MIDI-EX," and the system will wait for MIDI data to be received. On your MIDI sequencer etc., play back the files in order, starting with VS2400CD00.MID.
5. While the data is being received, an indication such as

```
01/32 Recieve:00*****
  Ver
  1.001
  -->1.002
```

will be displayed.

6. When reception is completed, the display will indicate "--S- Update SysPRG ?"
7. Use the function buttons to select the area(s) that will be updated.
Press the [F1] button to add the boot program to the update.
The display will indicate "B*** Update SysPRG ?"

Press the [F2] button to add the parameter block to the update.

The display will indicate "P*** Update SysPRG ?"

Press the [F3] button to add the system program to the update.
The display will indicate "S*** Update SysPRG ?"
The screen will be in the above state when reception is completed.

Press the [F4] button to add the sub-system program to the update.
The display will indicate "s*** Update SysPRG ?"

If you selected all areas to be updated, the display will indicate "BPSs Update SysPRG ?"

8. Press the [ENTER/YES] button.
When the display indicates "Please Reboot OK," the update has been completed.

Updating the system via the CD-R/RW drive

Required items

- Update CD-ROM for CD-DRIVE (P/No.17041256)

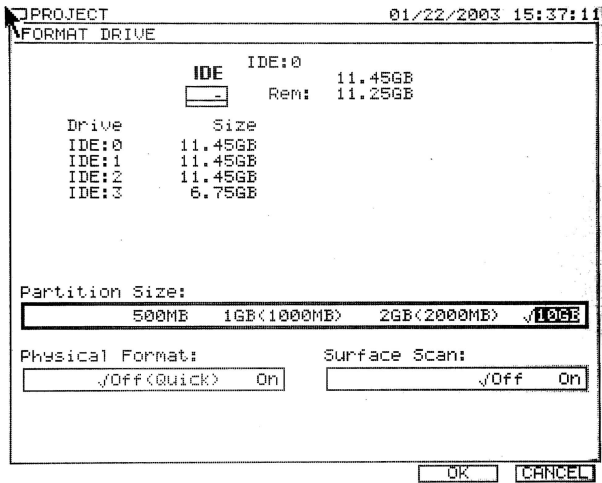
Use the following procedure to update the system.

1. While holding down the CH12 [TRACK STATUS] button and the [V.FADER] button, turn on the power of the VS-2400CD.
2. The display will indicate "Please Insert Update Disc." Insert the Update CD-ROM.
3. The update will begin automatically. When the update is completed, the version number will be displayed. Verify the version number. This completes the update.

FORMATTING THE HARD DISK

If the hard disk was exchanged for servicing etc., you must format it.

1. From the normal screen, hold down the [SHIFT] button and press the [PROJECT] button.
2. Move the cursor to the disk drive that you want to format.
3. Press the [PAGE] button to select "Page4."
4. Press the [F2 (FmtDrv)] button.
The Make Partition screen will appear.



[Fig.11]

When you replace Hard Disk Drive unit, please be careful to the following point

It is necessary to set HDD unit to Master Mode when you use those on VS-2400CD.

In case the default settings of your HDD unit is not Master Mode, please change it before installation to VS-2400CD.

Jumper pin settings for Master Mode is different by manufacture or model of HDD units.

Please check Owner's Manual or specification sheet of HDD unit before changing the pin setting.

- Physical Format:

Select the method by which the drive will be formatted.

- Off (Quick)

Only Logical Formatting will be performed.

All data of that drive will be lost.

Normally you will select "Off."

- On

Physical Formatting will be performed on the drive.

Select "Physical" when formatting a drive that has produced Surface Scan errors.

This method will take a long time for formatting to be completed.

All data of that drive will be lost.

- Surface Scan:

This switch specifies whether a write/read check will be performed after the disk is formatted.

If this is "On," a read/write check will be performed on the entire area of the disk.

Time will be required for this check to be completed.

- Partition Size:

Selects the partition size.

500MB/1GB(1000MB)/2GB(2000MB) are provided to maintain compatibility with older models of the VS series.

Normally, we strongly recommend that you select 10GB.

- [F5 (OK)]

Formats and partitions the drive.

- [F6 (CANCEL)]

Cancels the Make Partition operation, and returns to the Project Condition menu.

5. Press the [F5 (OK)] button.

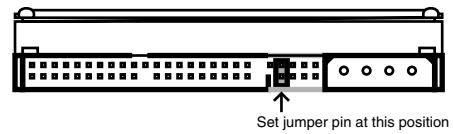
The LCD screen will ask "Format Drive IDE OK?"

6. Press the [ENTER/YES] button.

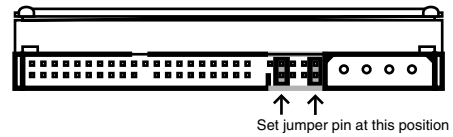
The drive will be formatted.

Jumper pin settings of typical HDDs

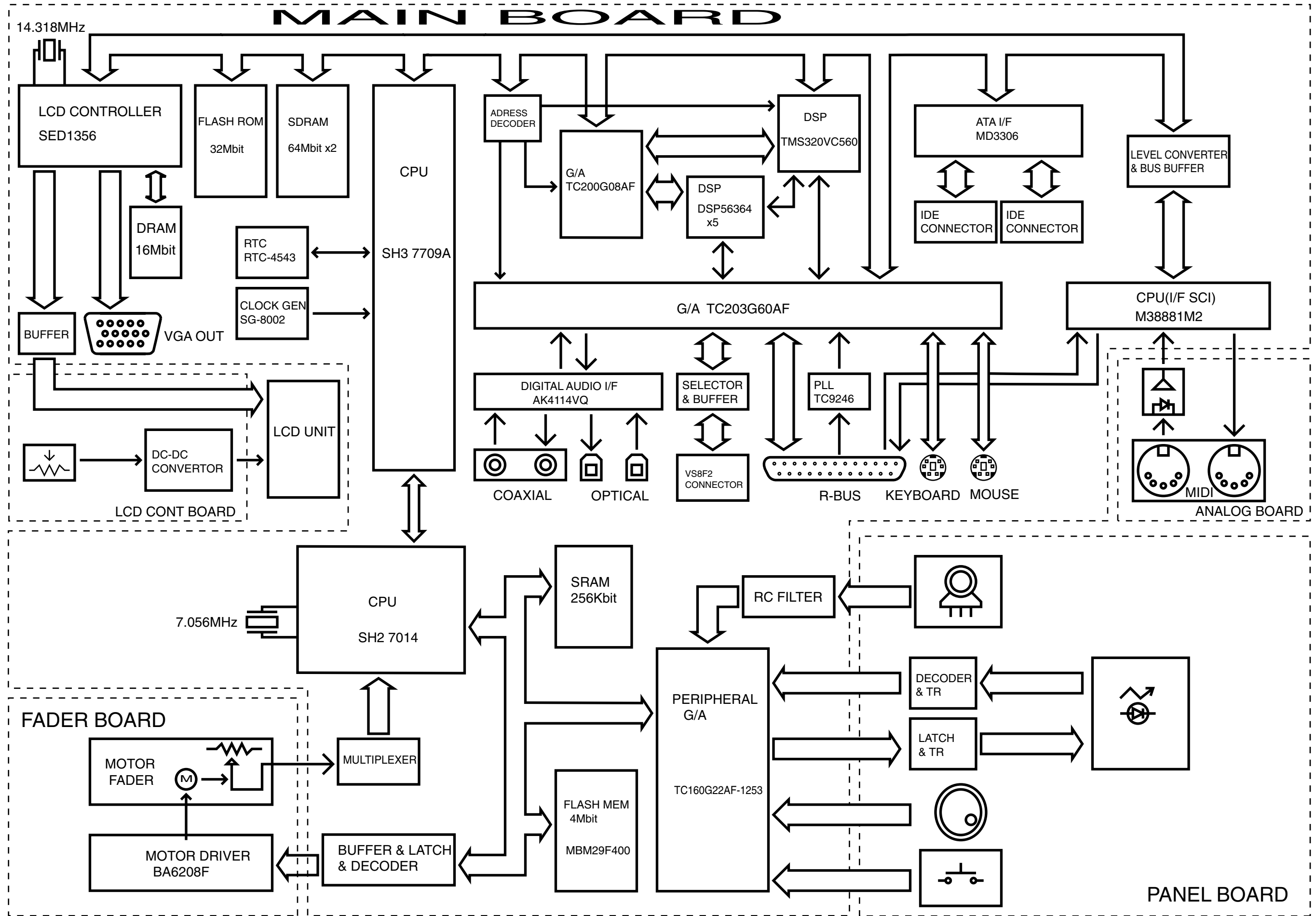
Maxtor D740 series.



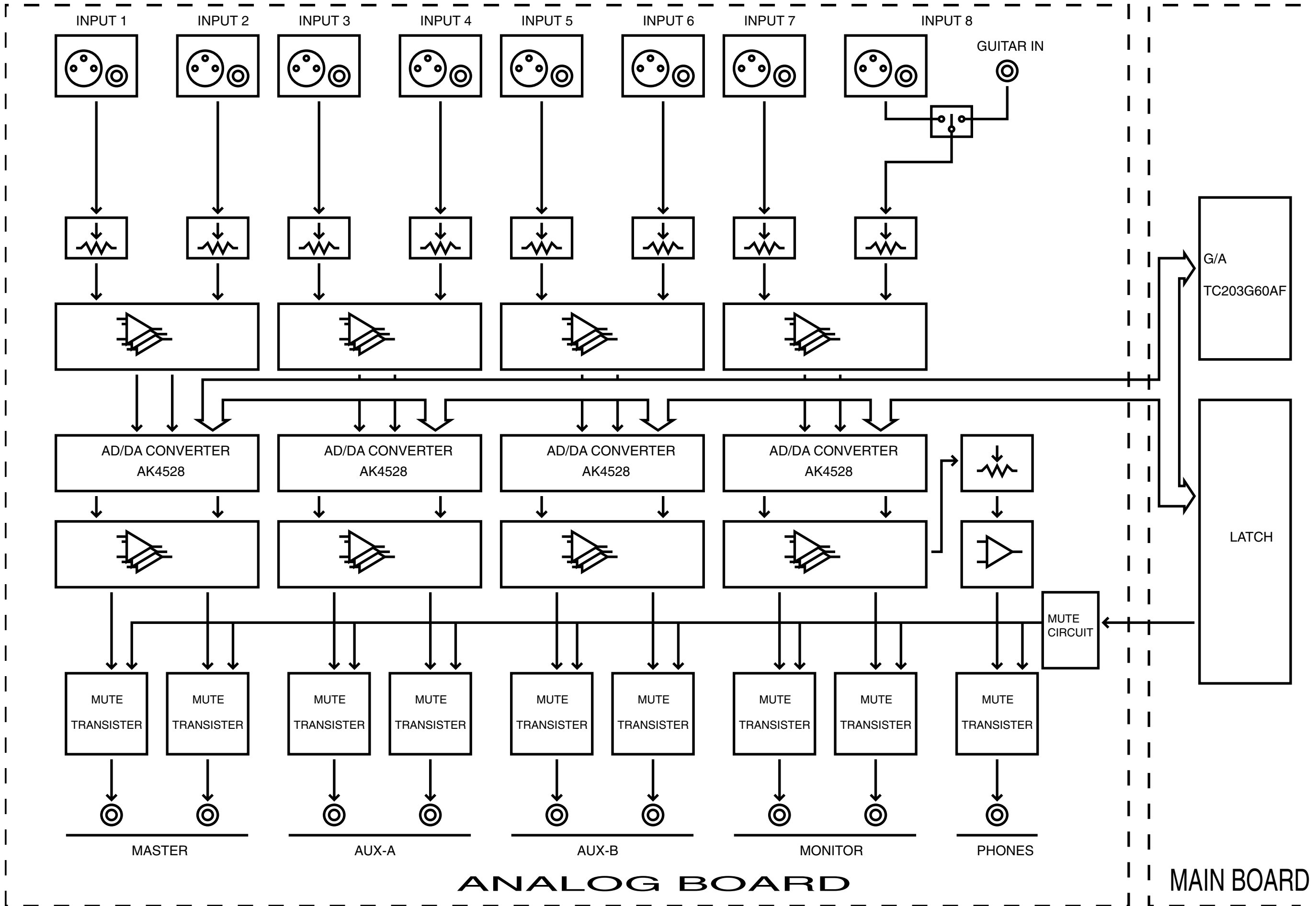
IBM DTLA series.



BLOCK DIAGRAM 1



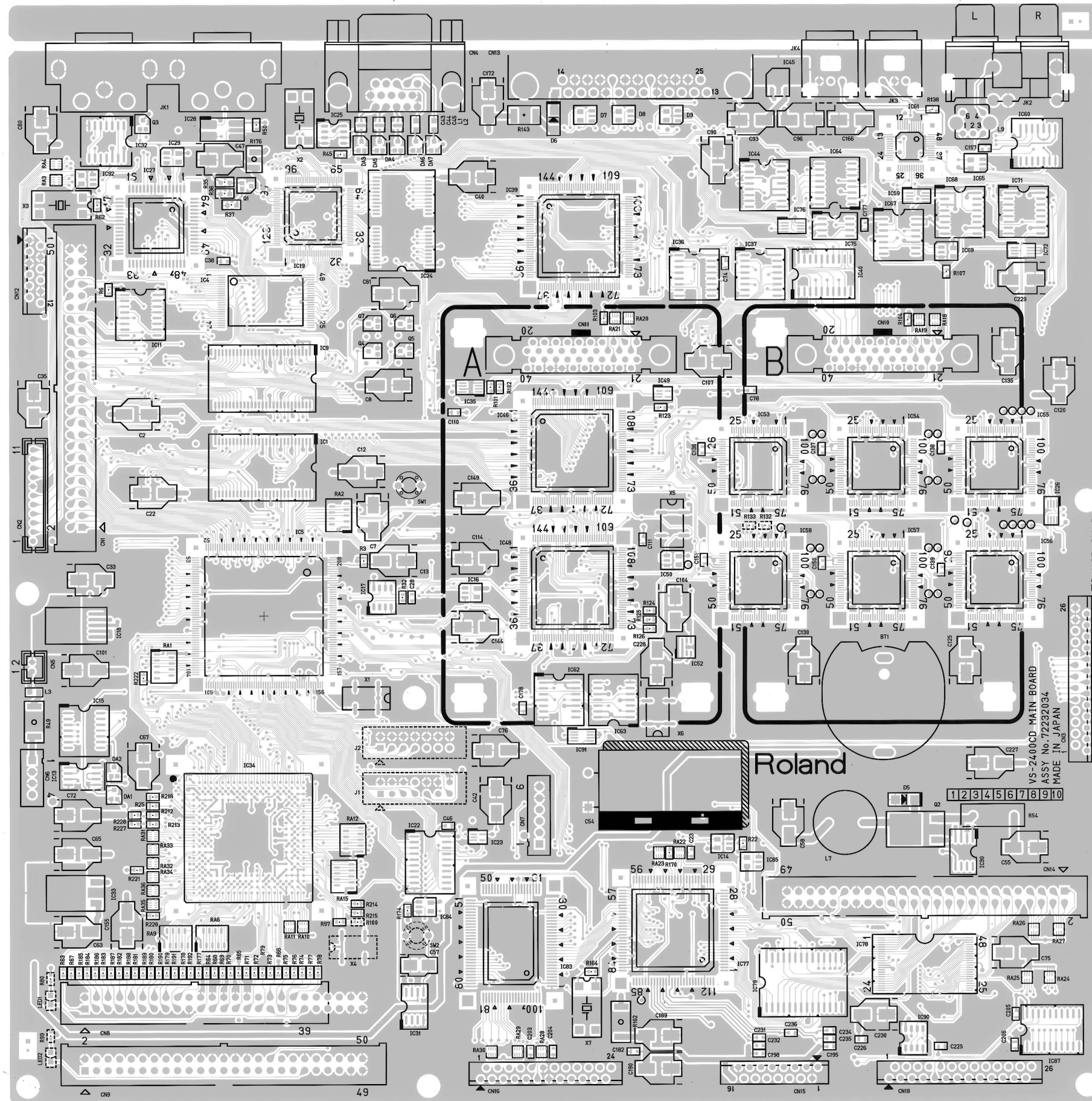
BLOCK DIAGRAM 2



ANALOG BOARD

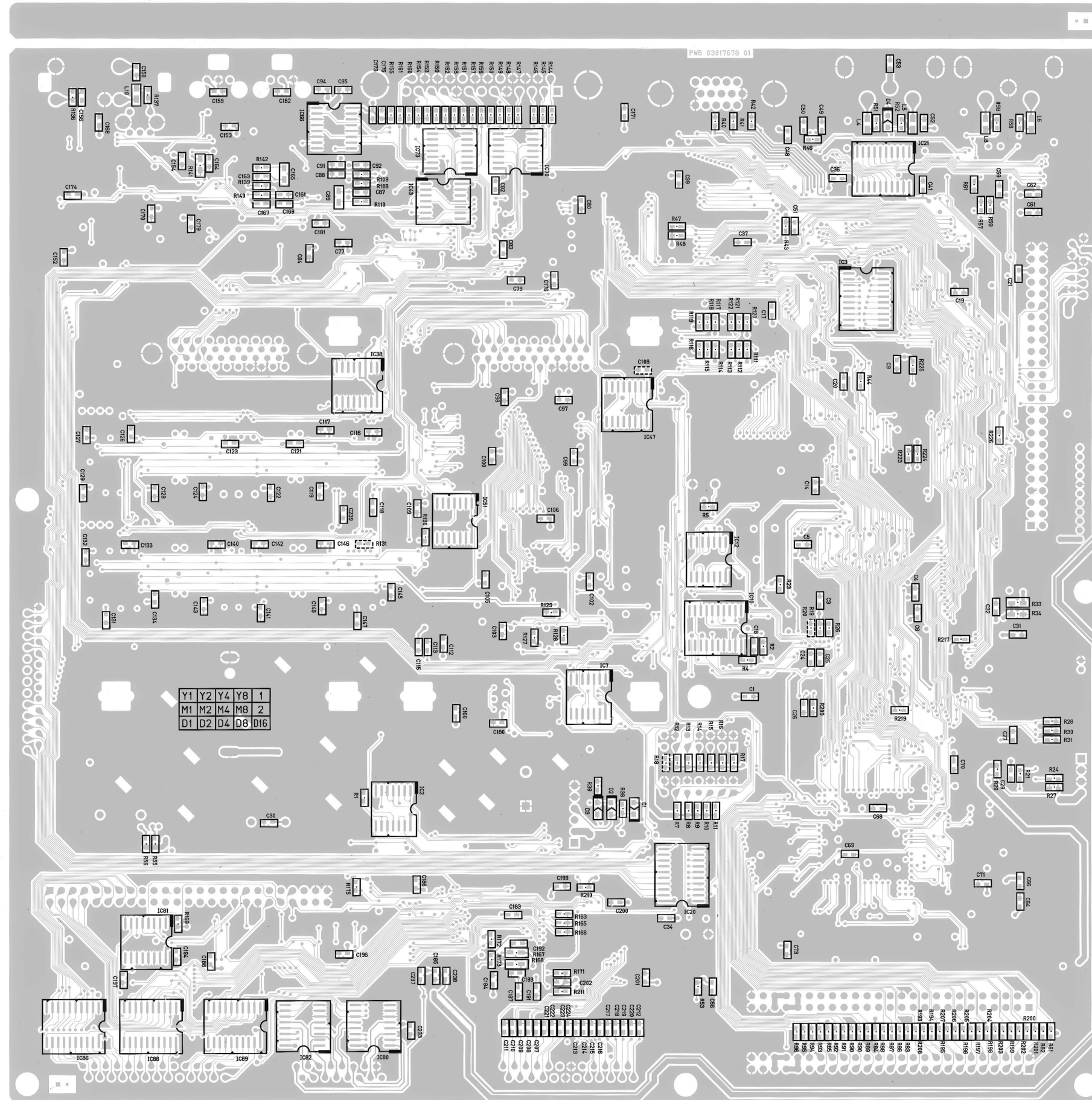
MAIN BOARD

CIRCUIT BOARD (MAIN)



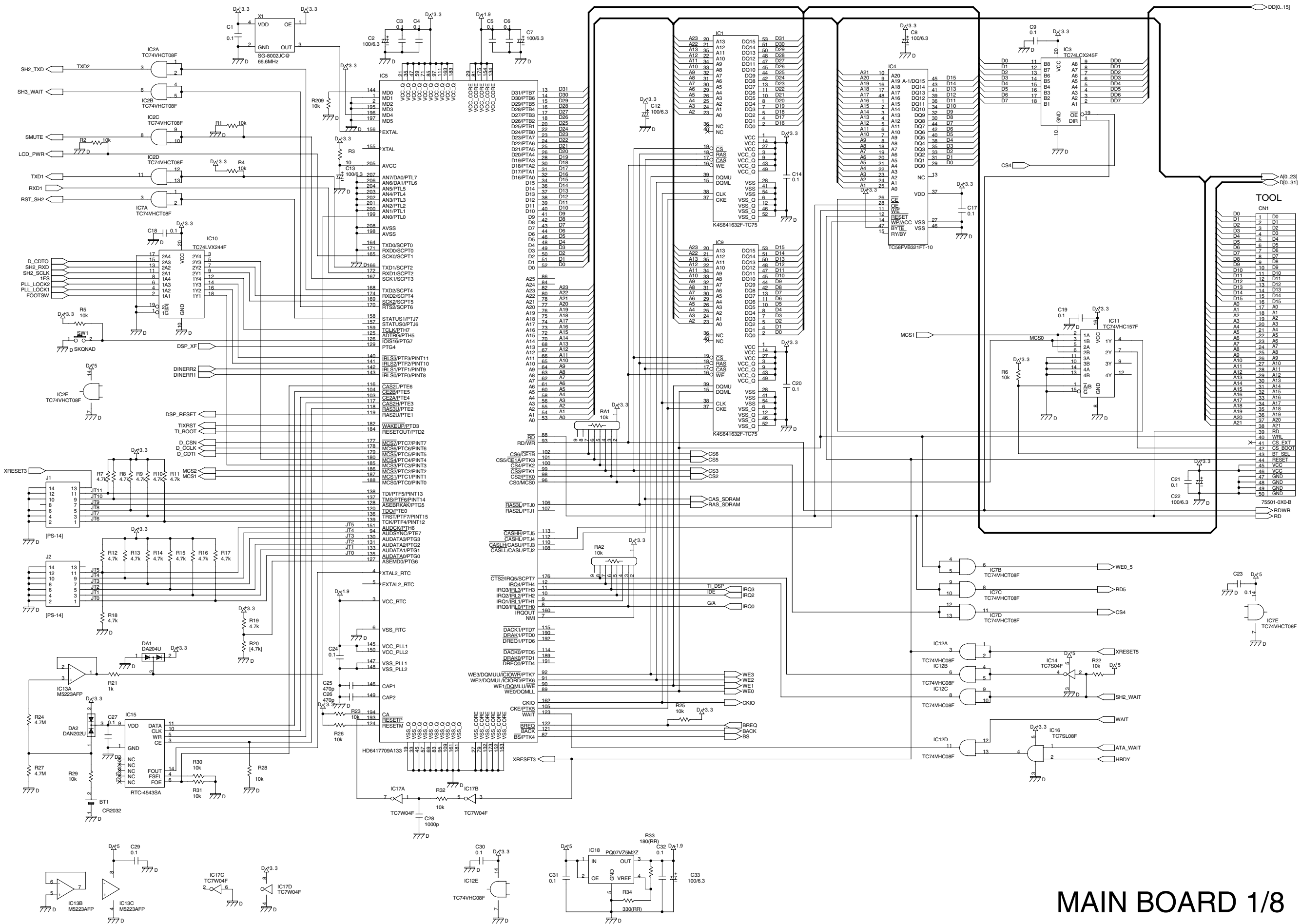
View from components side

CIRCUIT BOARD (MAIN)



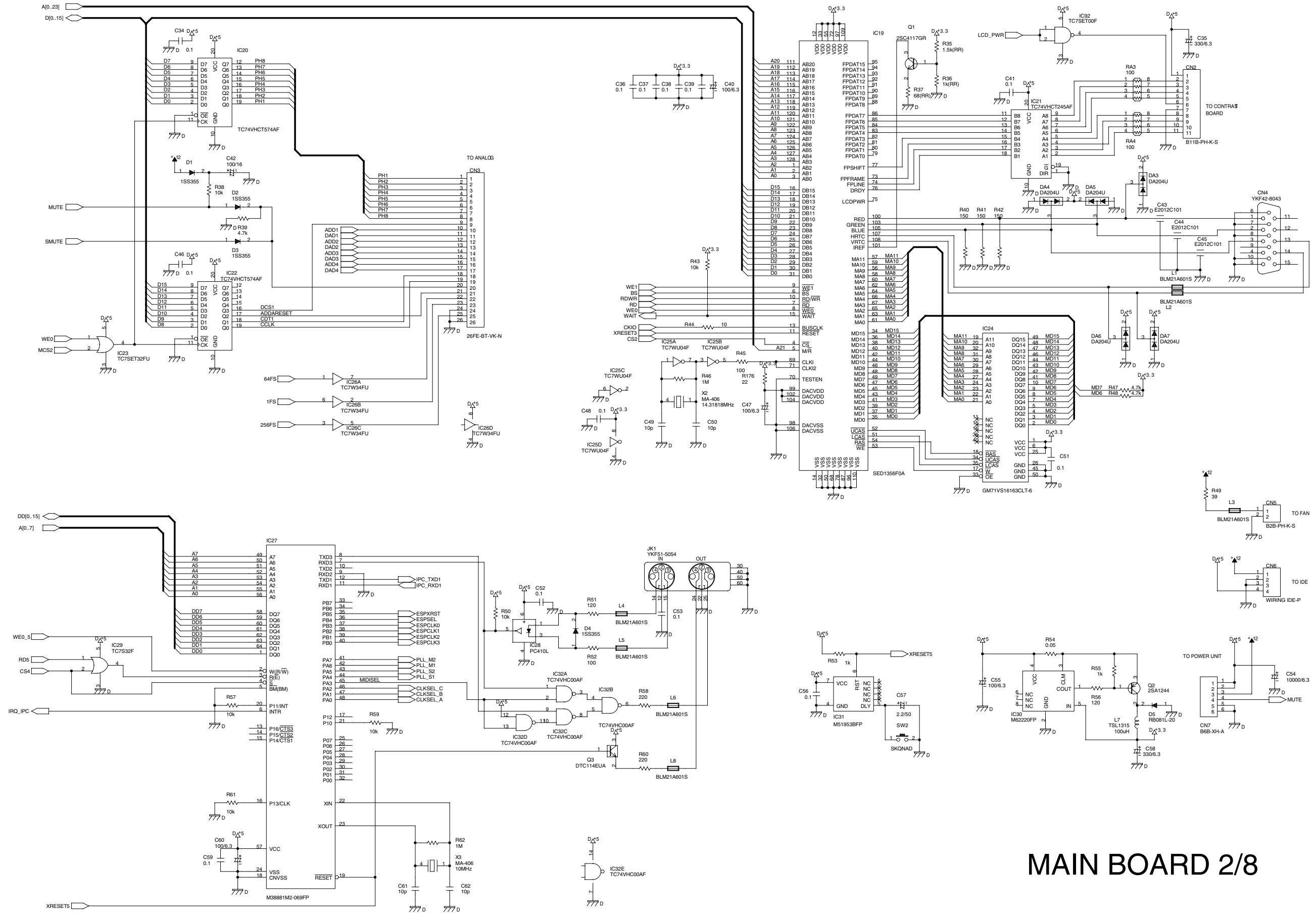
View from foil side

CIRCUIT DIAGRAM (MAIN 1/8)



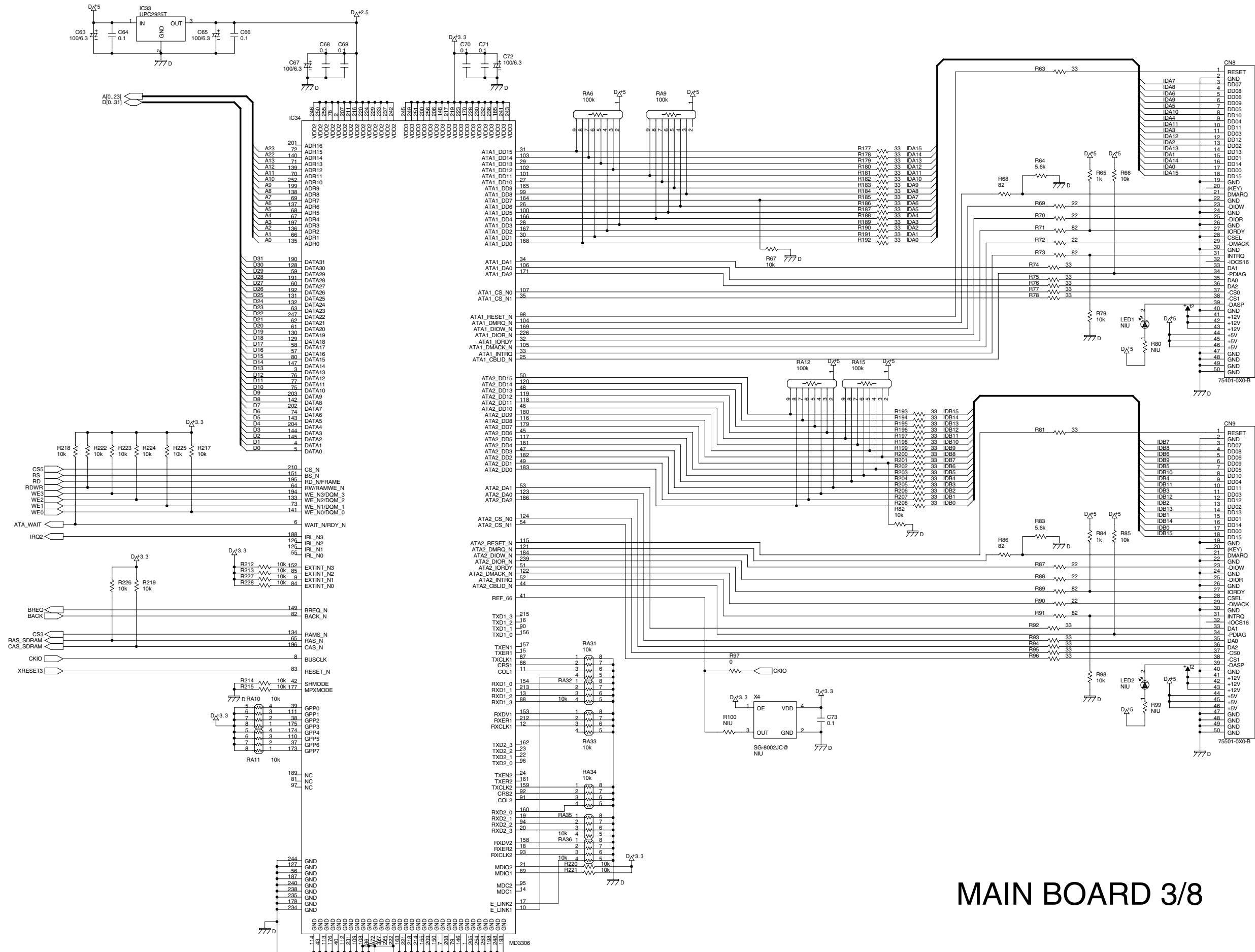
MAIN BOARD 1/8

CIRCUIT DIAGRAM (MAIN 2/8)



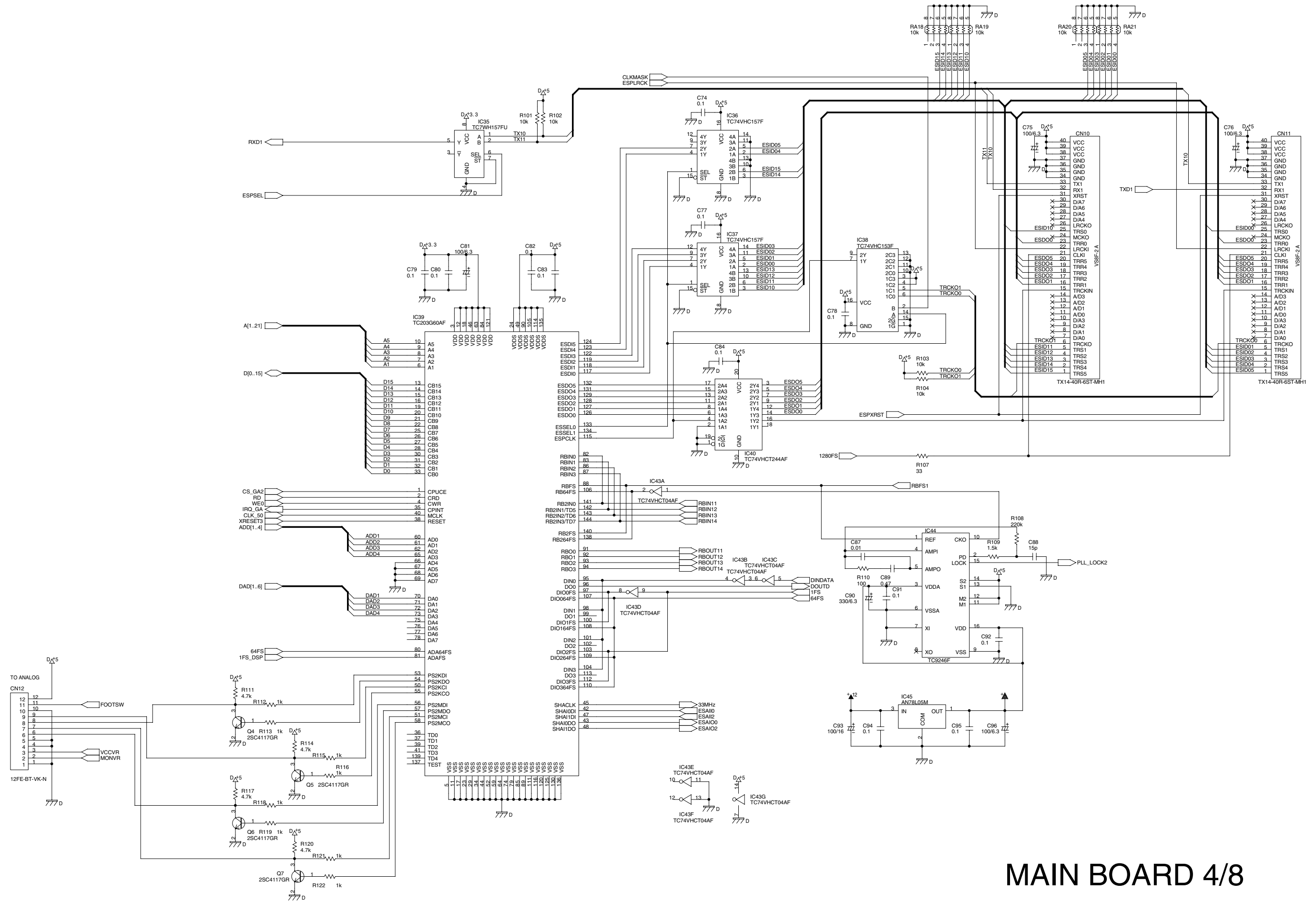
MAIN BOARD 2/8

CIRCUIT DIAGRAM (MAIN 3/8)



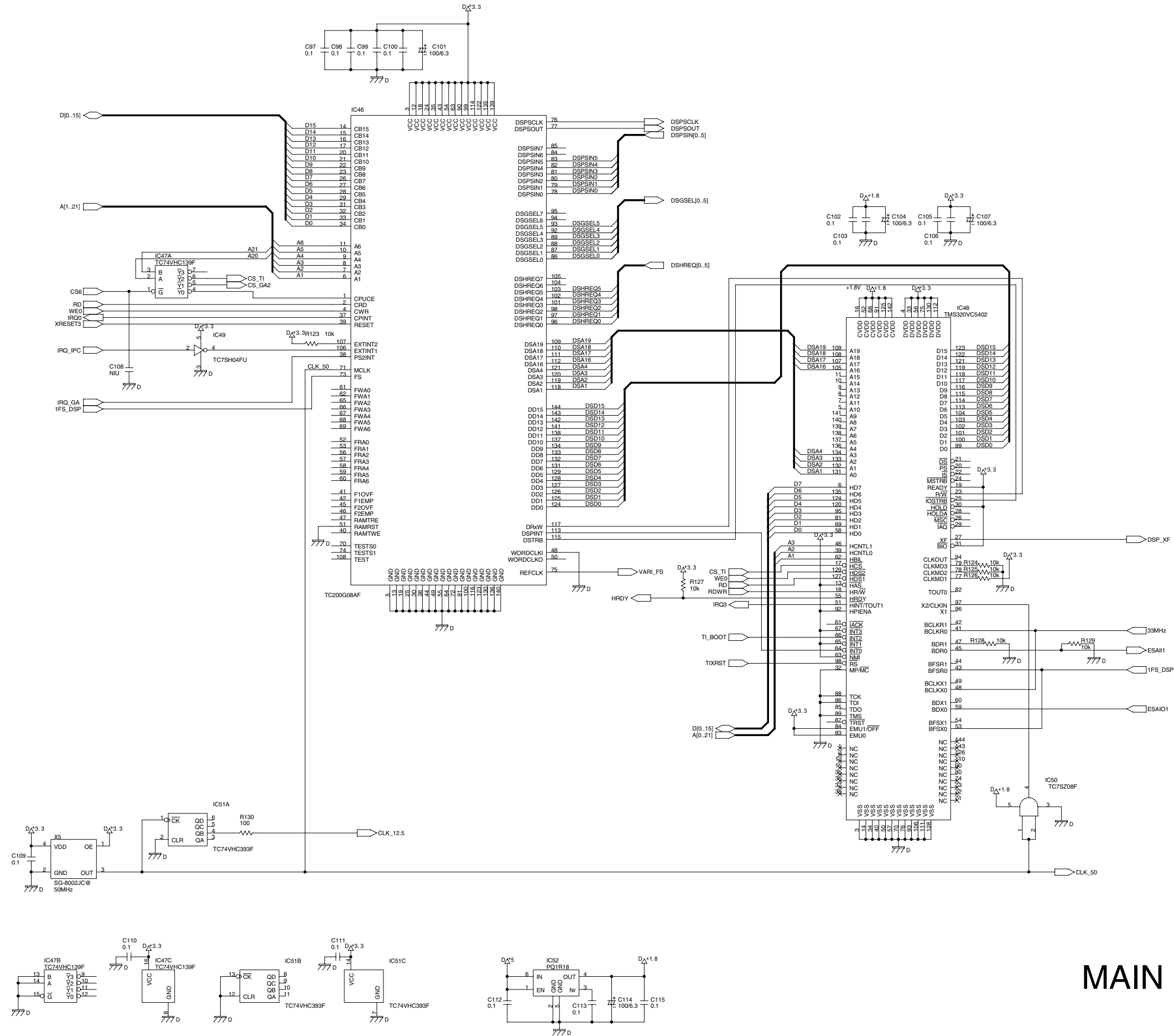
MAIN BOARD 3/8

CIRCUIT DIAGRAM (MAIN 4/8)



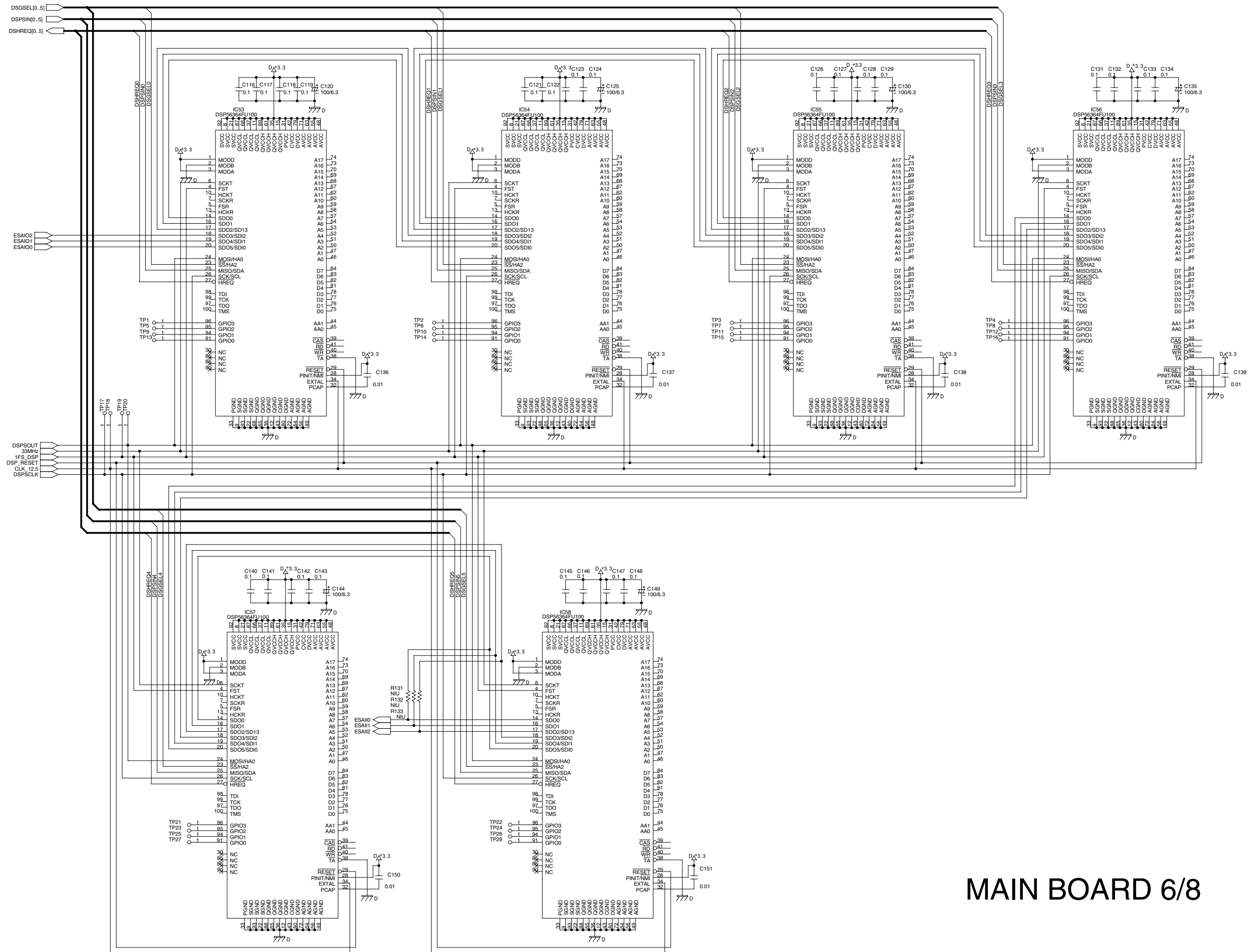
MAIN BOARD 4/8

CIRCUIT DIAGRAM (MAIN 5/8)



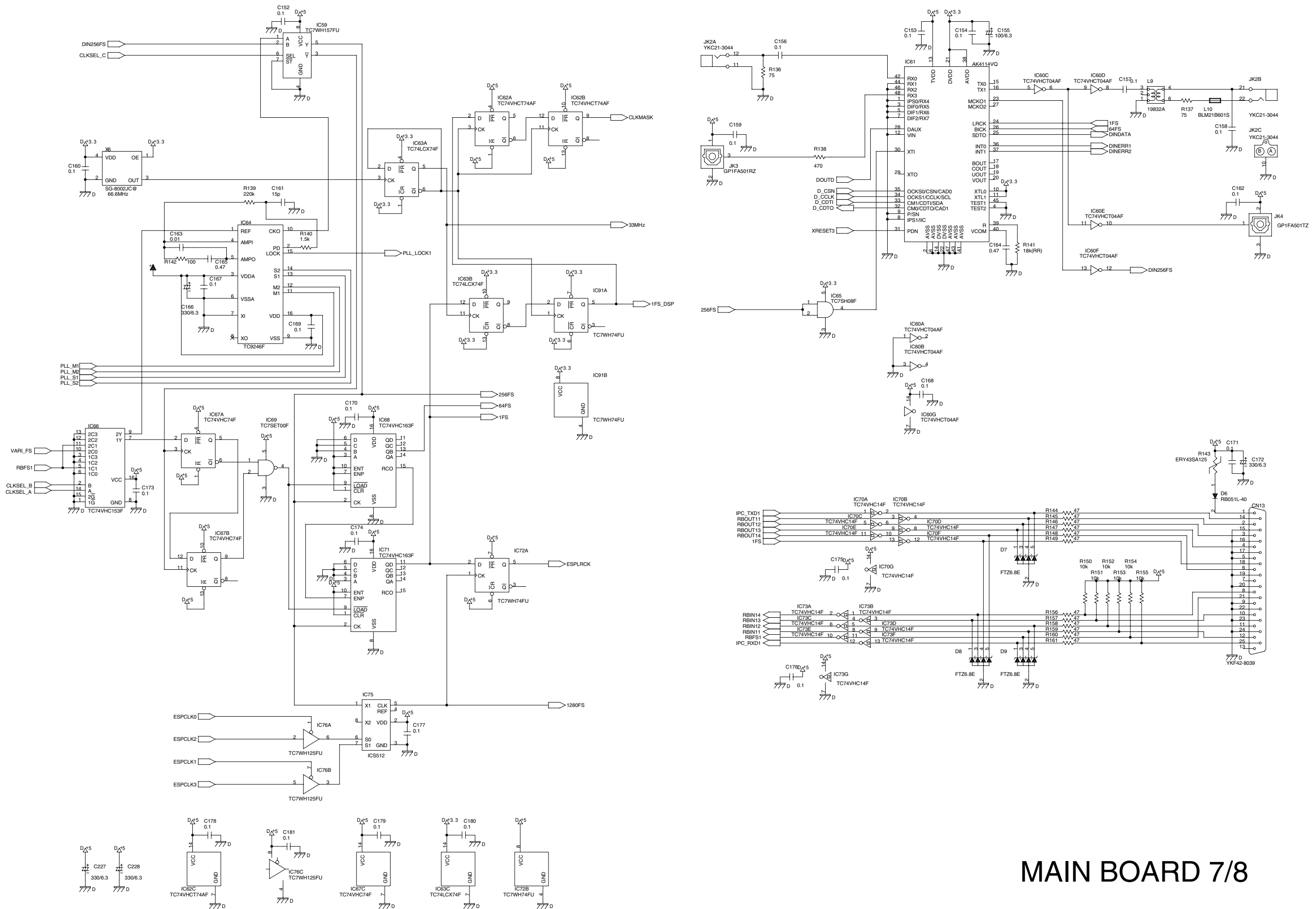
MAIN BOARD 5/8

CIRCUIT DIAGRAM (MAIN 6/8)



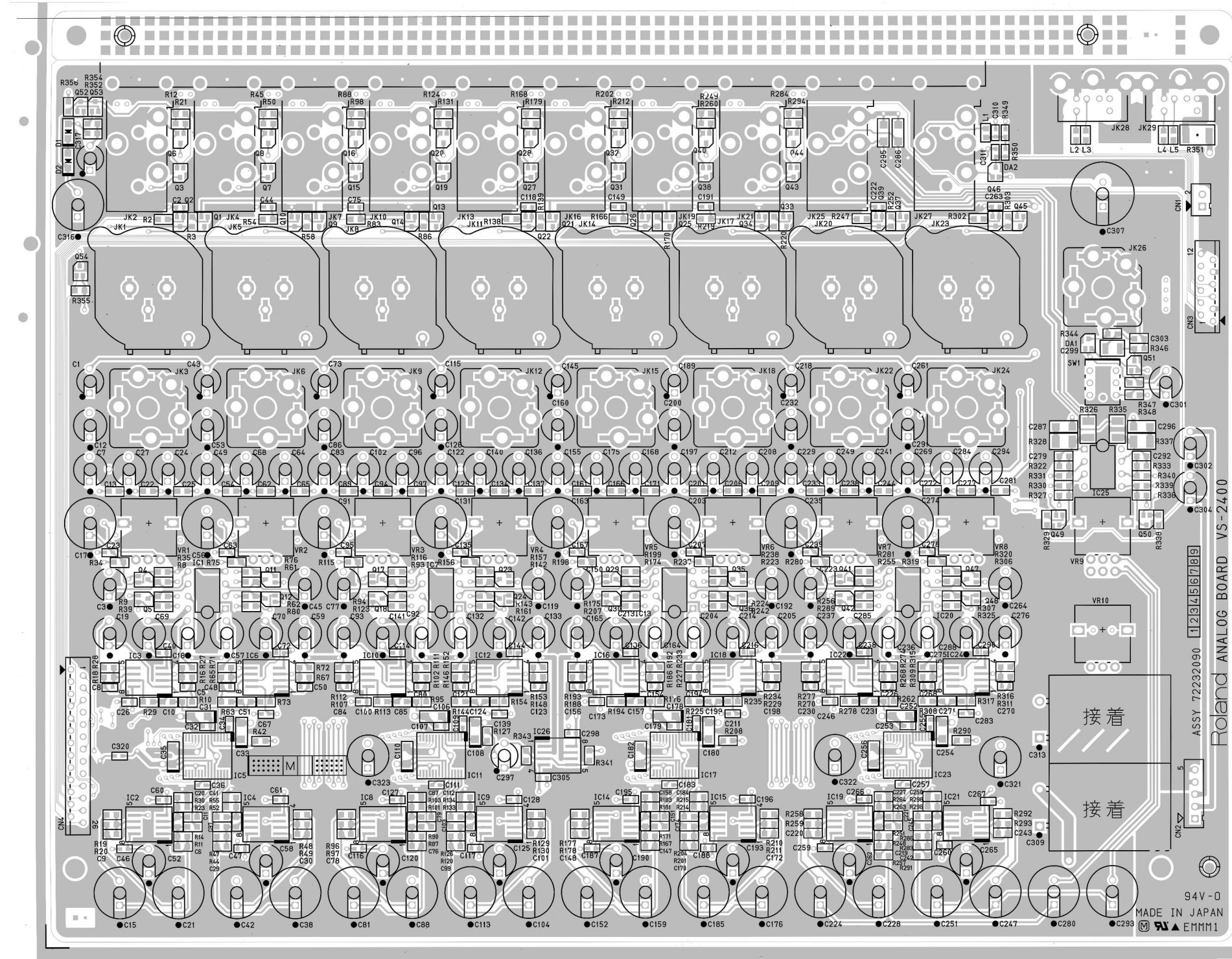
MAIN BOARD 6/8

CIRCUIT DIAGRAM (MAIN 7/8)



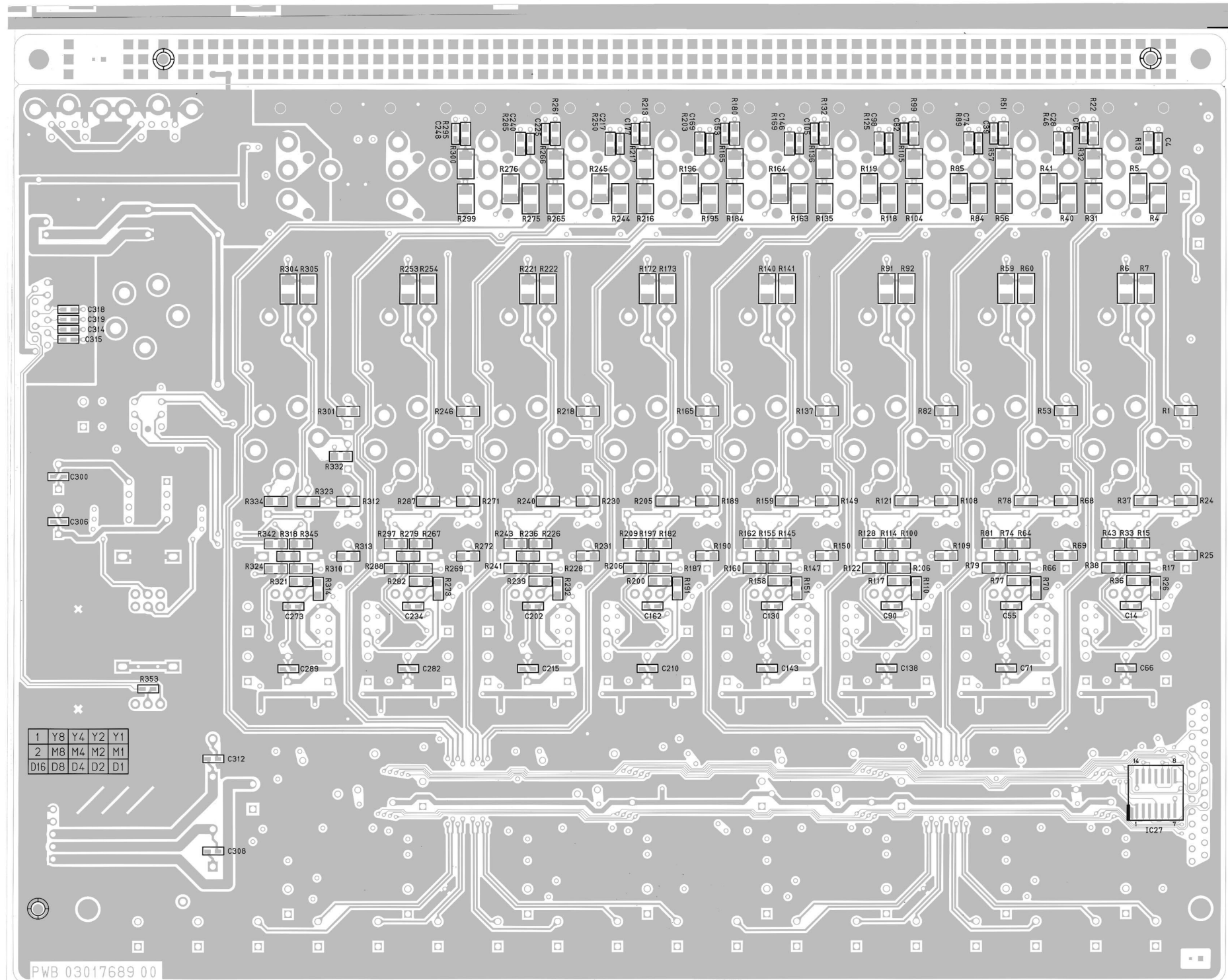
MAIN BOARD 7/8

CIRCUIT BOARD (ANALOG)



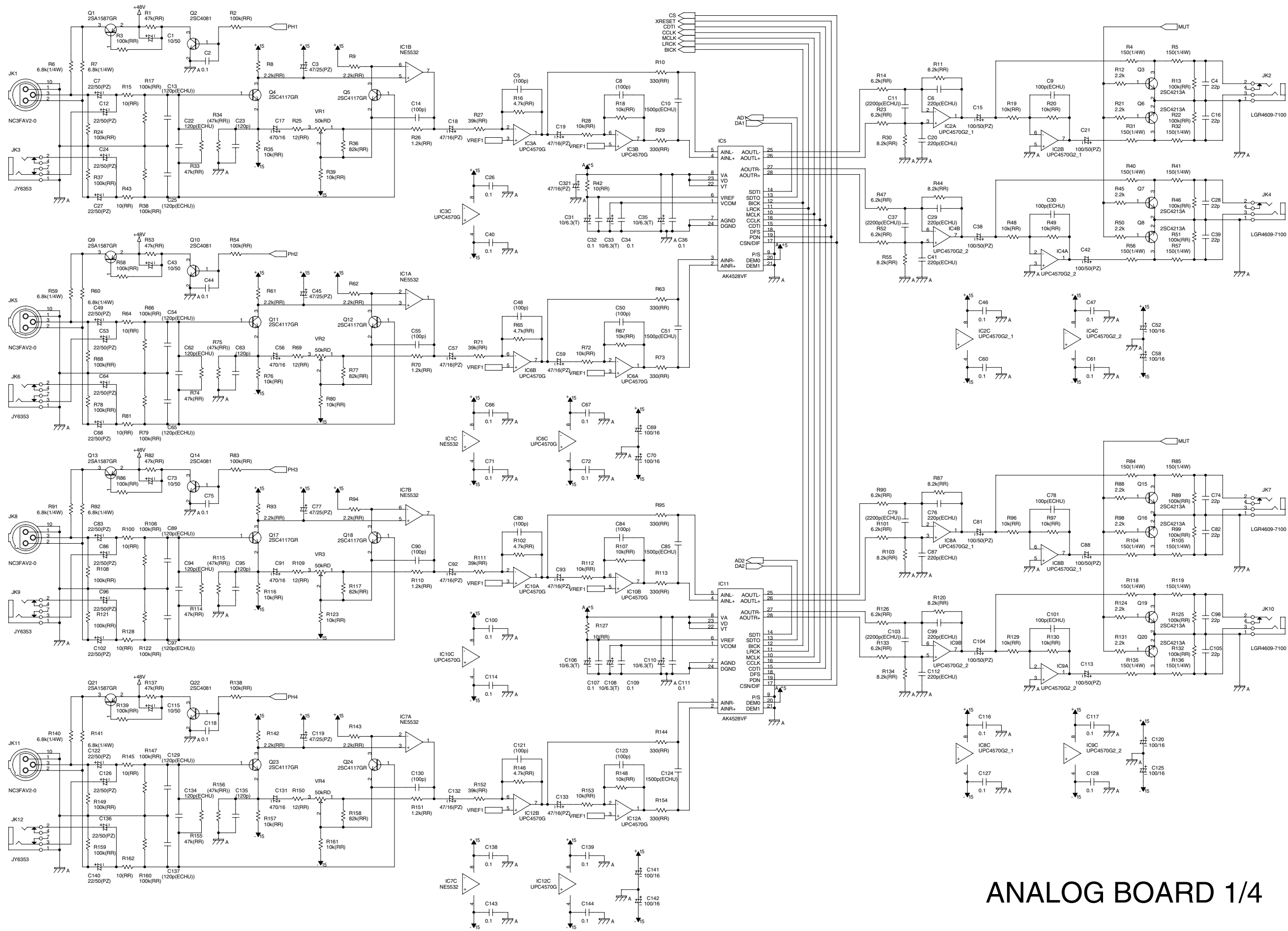
View from components side

CIRCUIT BOARD (ANALOG)



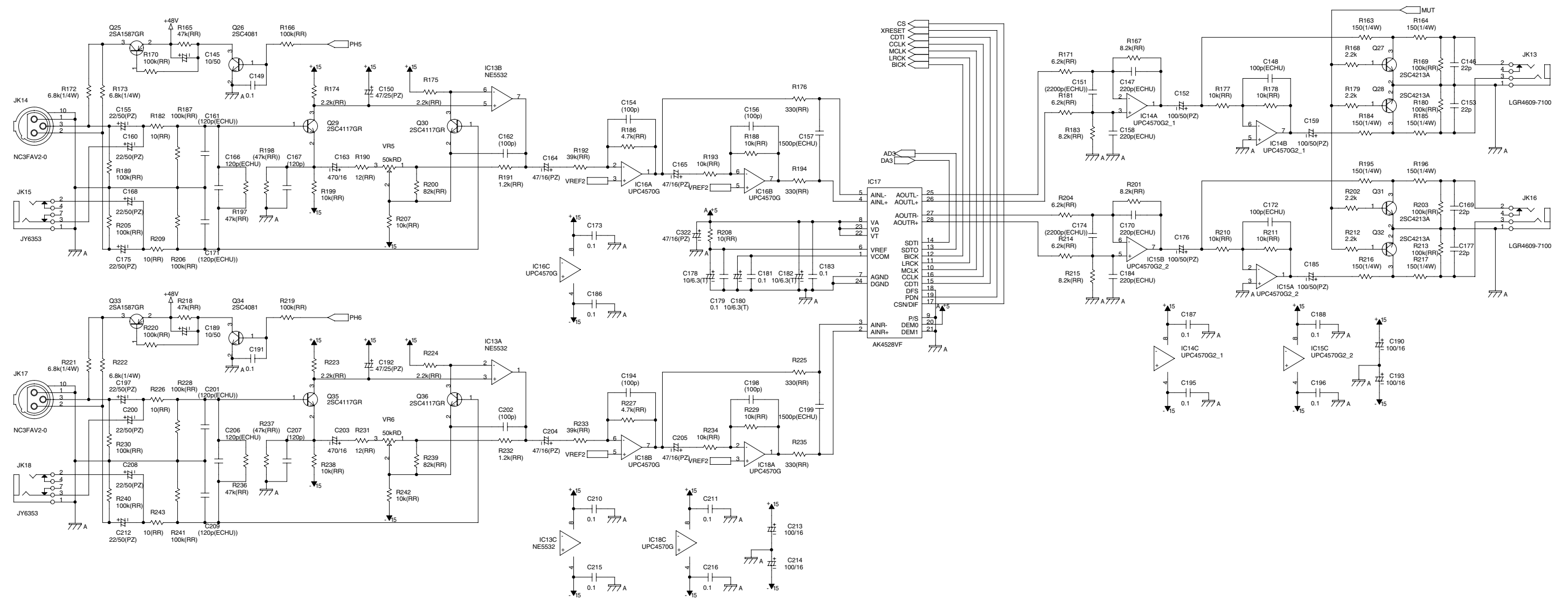
View from foil side

CIRCUIT DIAGRAM (ANALOG 1/4)



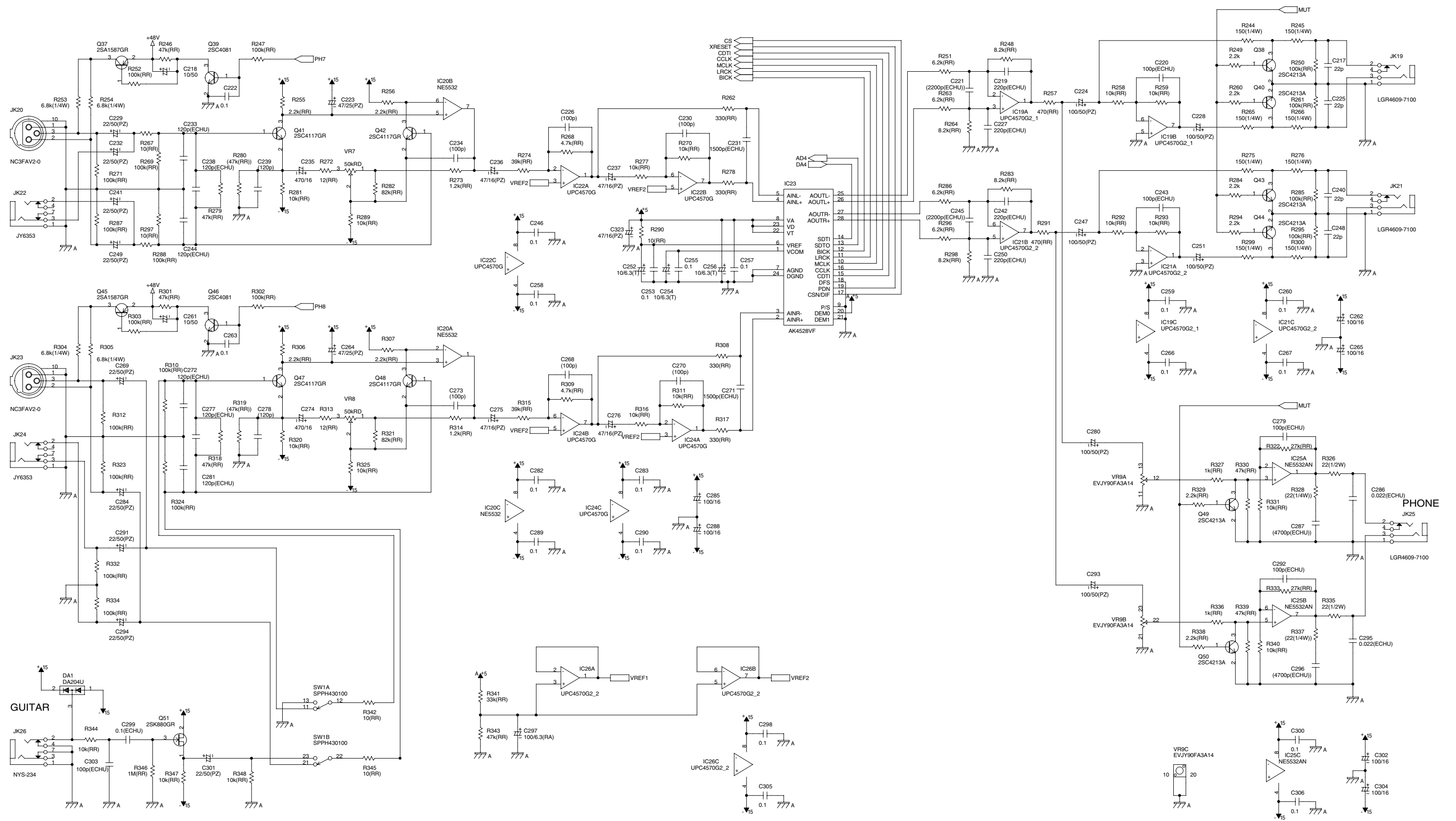
ANALOG BOARD 1/4

CIRCUIT DIAGRAM (ANALOG 2/4)



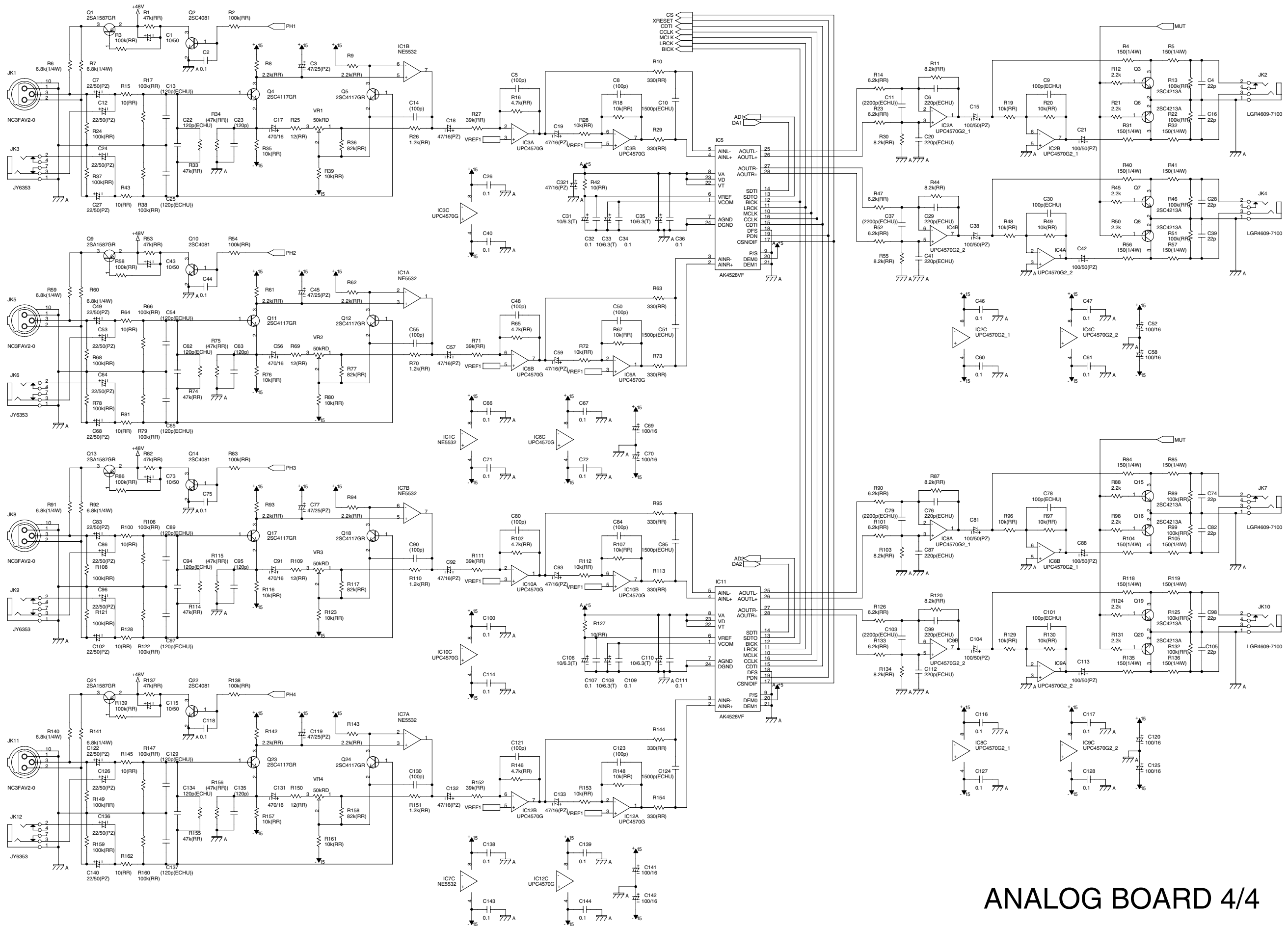
ANALOG BOARD 2/4

CIRCUIT DIAGRAM (ANALOG 3/4)



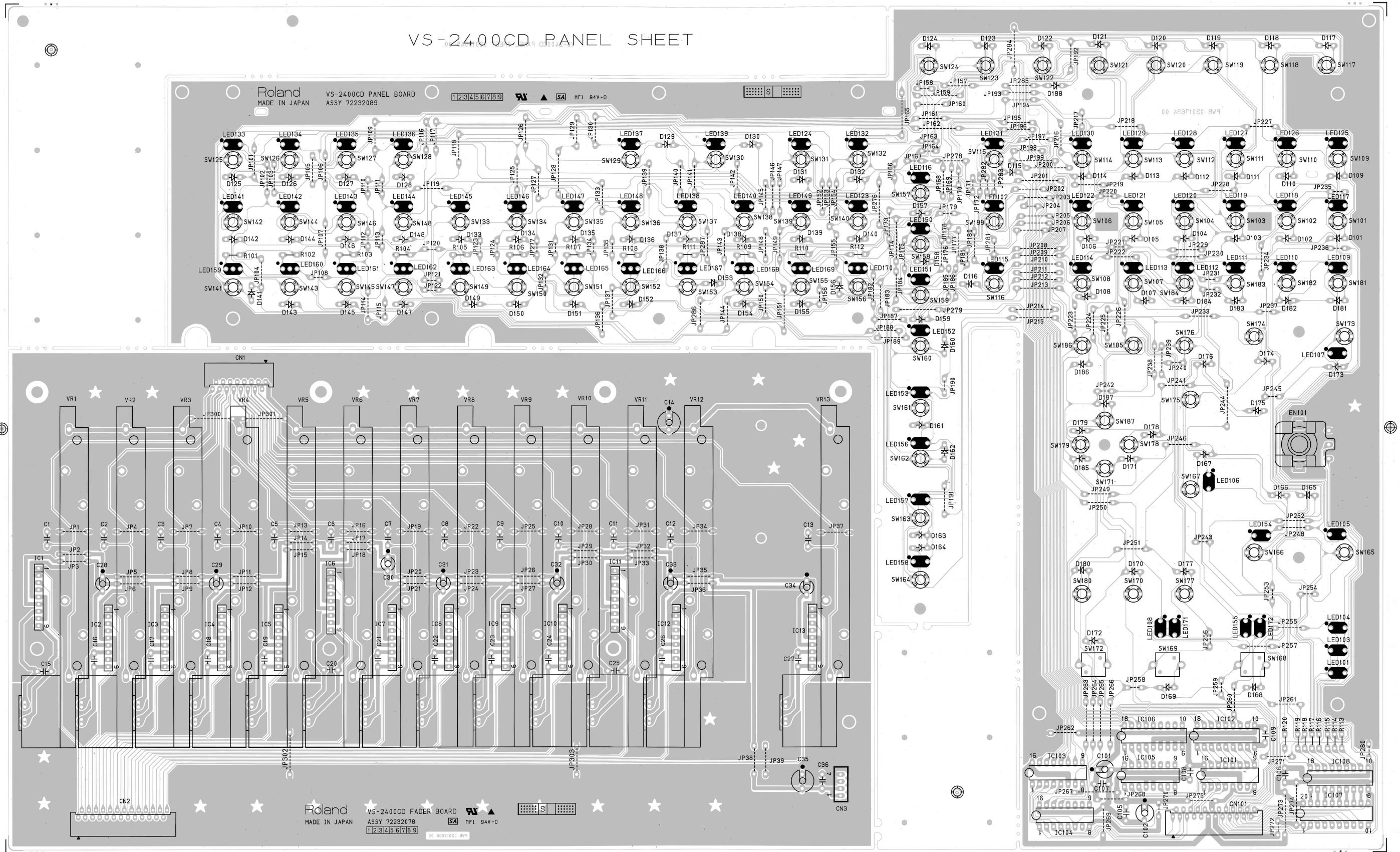
ANALOG BOARD 3/4

CIRCUIT DIAGRAM (ANALOG 4/4)



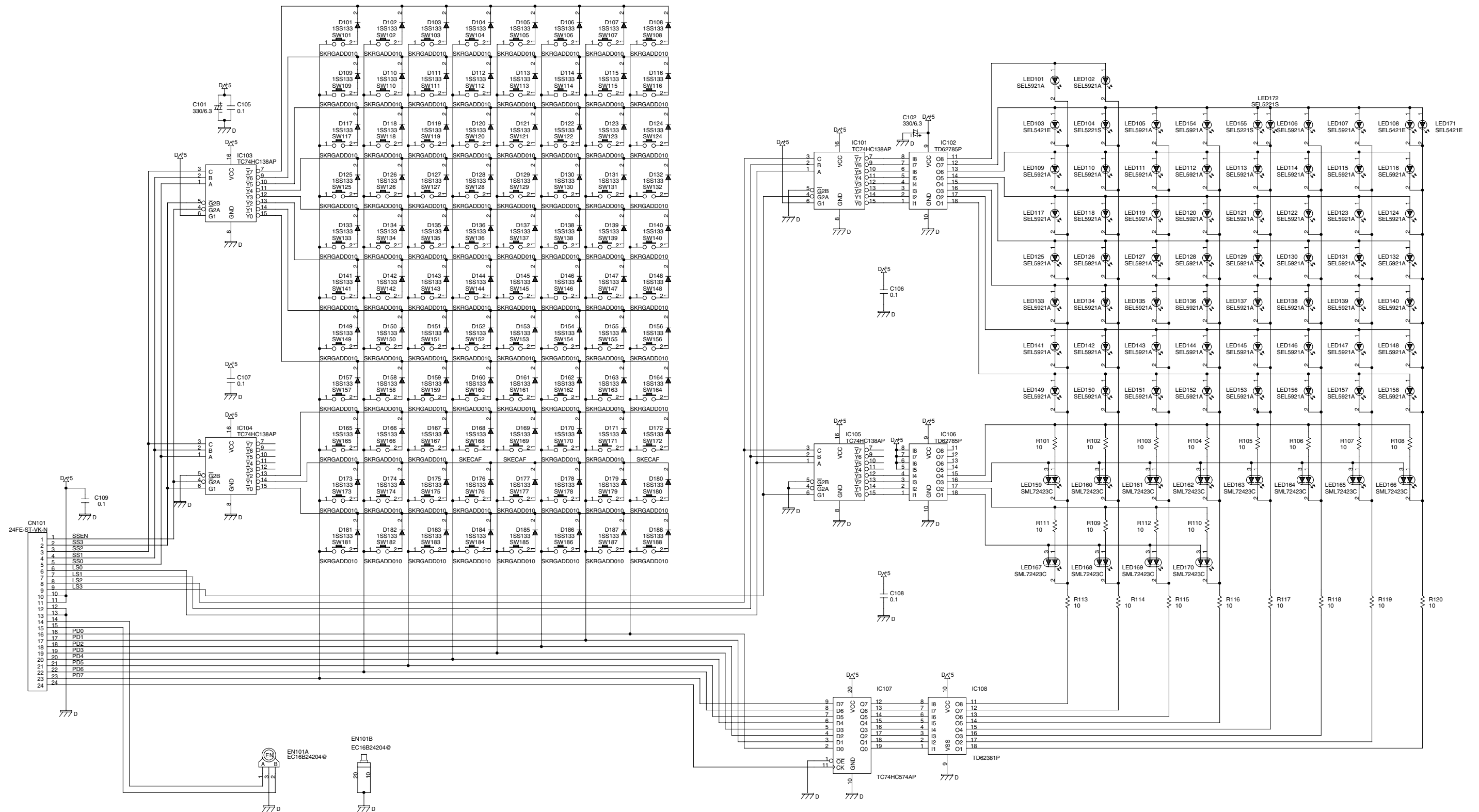
ANALOG BOARD 4/4

CIRCUIT BOARD (PANEL/FADER)

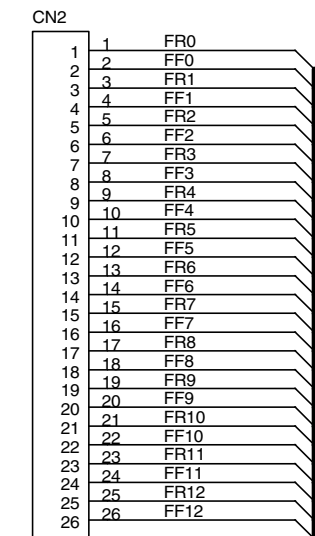
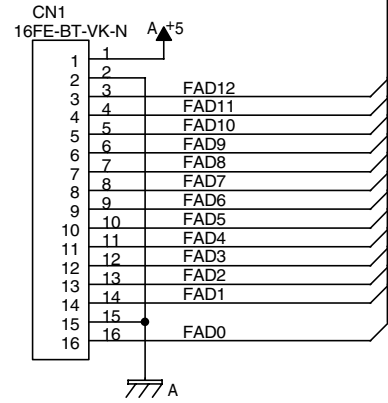
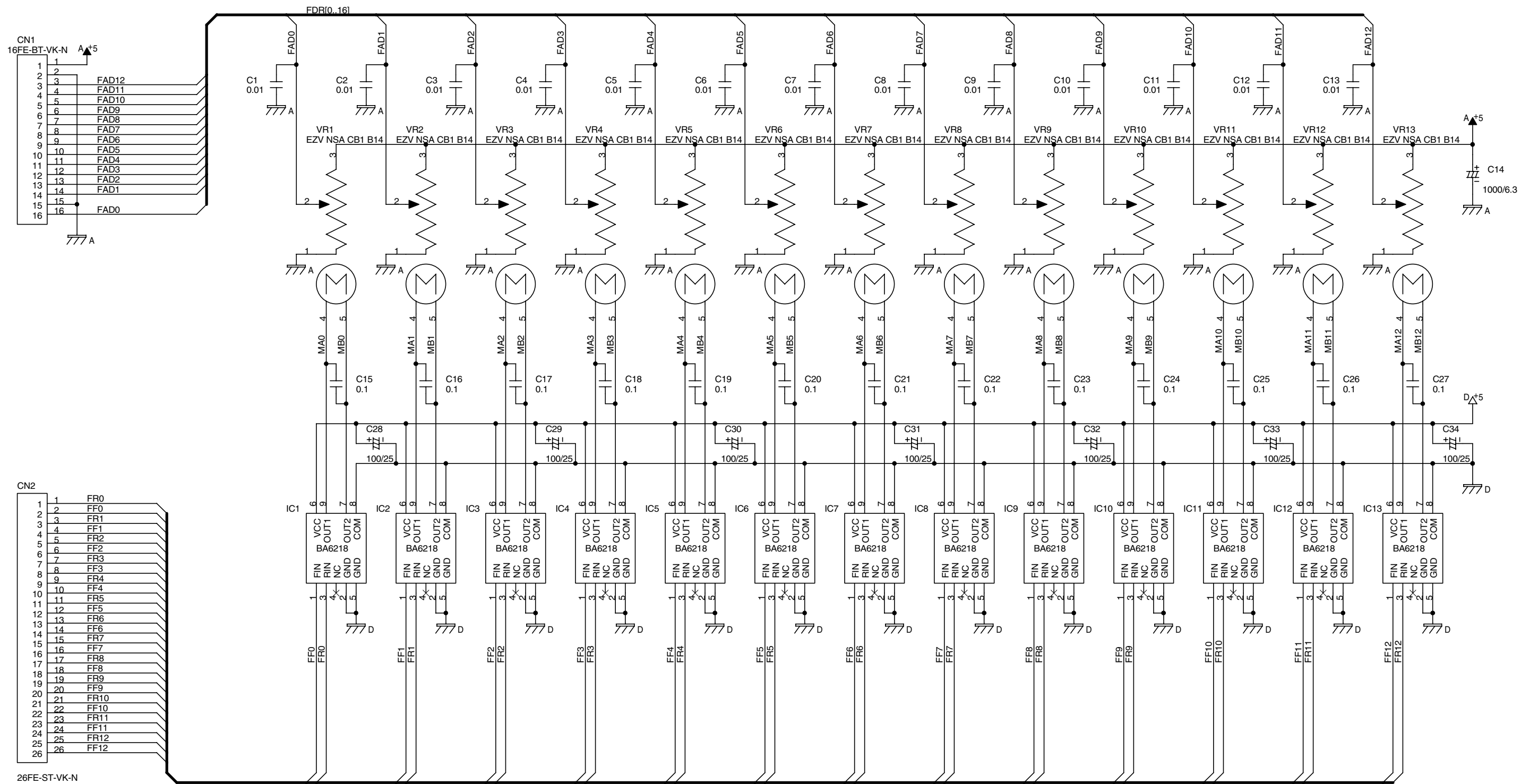


View from components side
"scale=0.75"

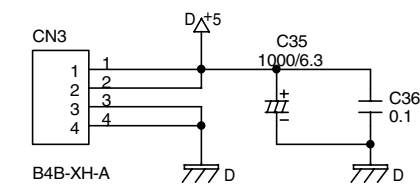
CIRCUIT DIAGRAM (PANEL)



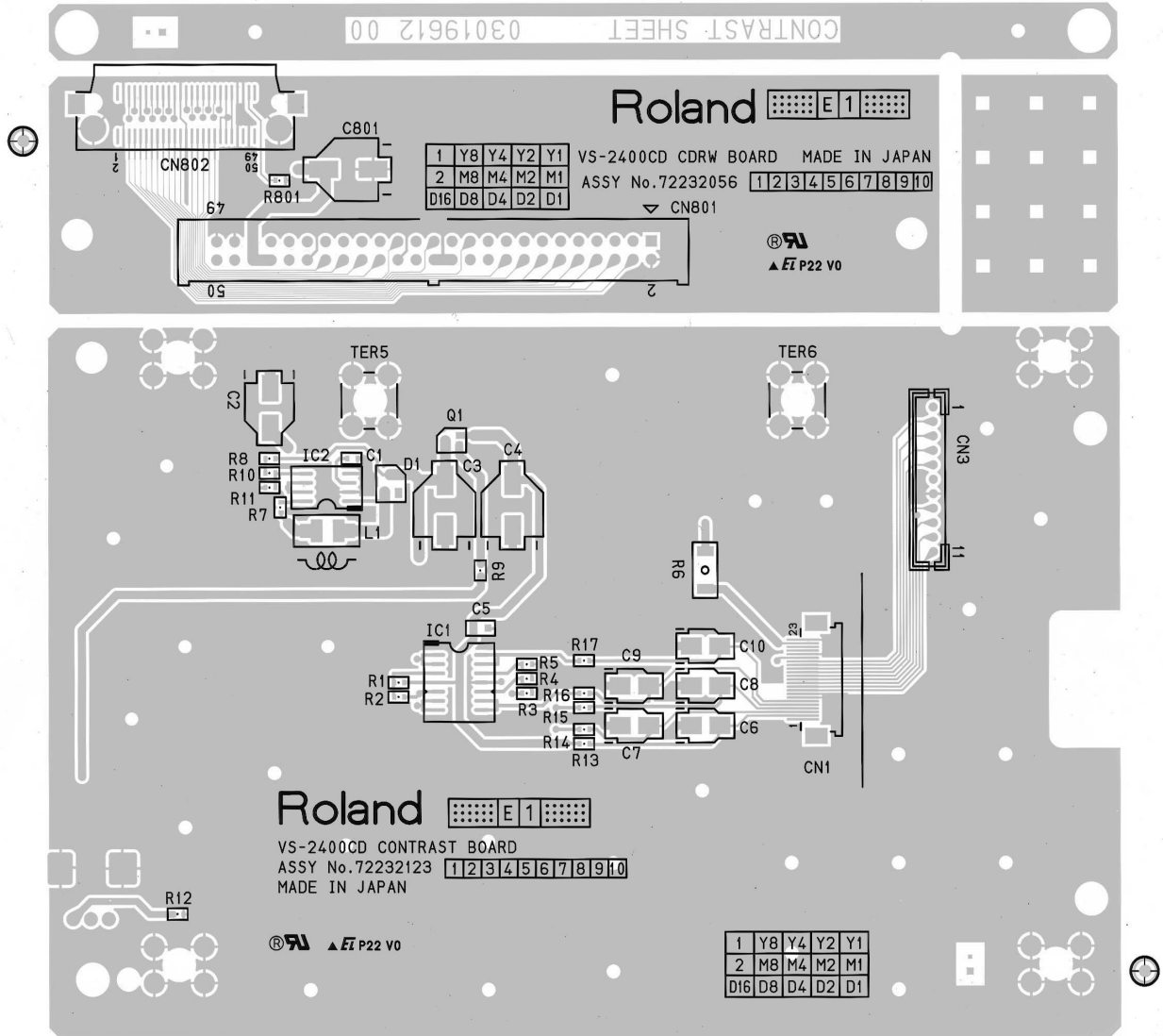
CIRCUIT DIAGRAM (FADER)



26FE-ST-VK-N

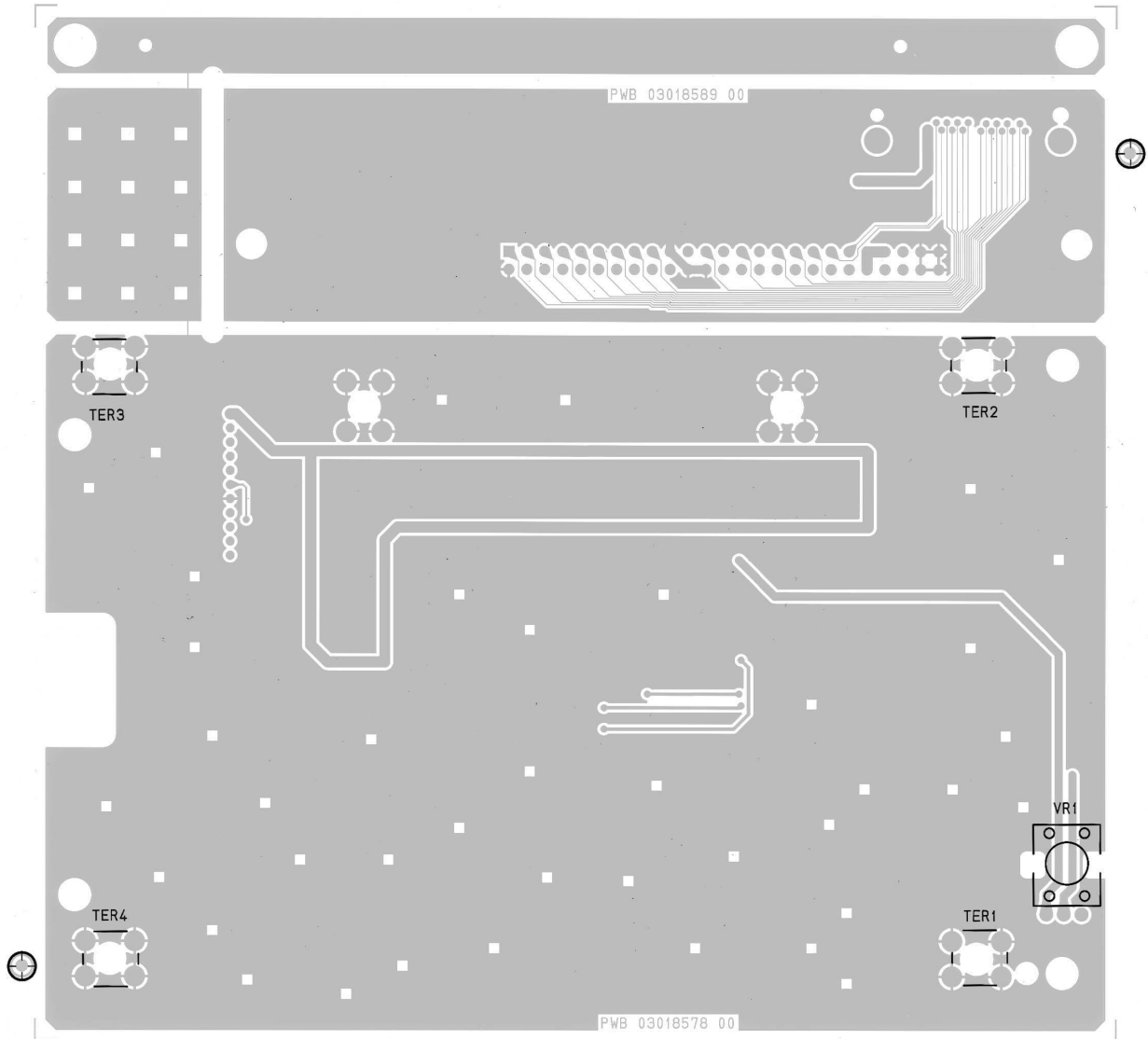


CIRCUIT BOARD (CONTRAST/CDRW)



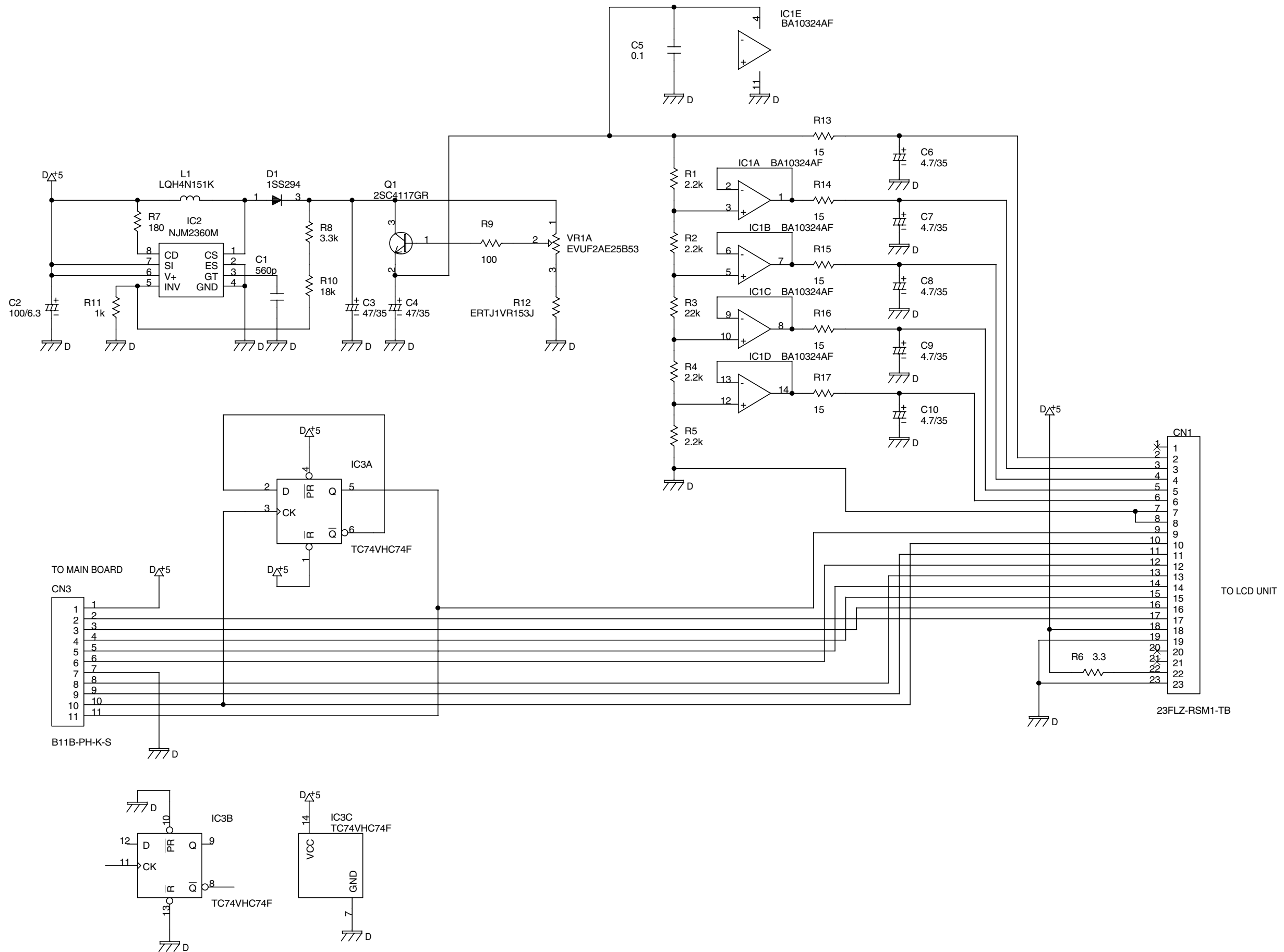
View from components side

CIRCUIT BOARD (CONTRAST/CDRW)



View from foil side

CIRCUIT DIAGRAM (CONTRAST)



CIRCUIT DIAGRAM (CDRW)

